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THE MEDICAL JOURNAL OF AUSTRALIA

VOL. II.-6TH YEAR.

SYDNEY: SATURDAY, OCTOBER 25, 1919.

No. 17.

THE PROBLEM OF TUBERCULOSIS IN THE STATE OF SOUTH AUSTRALIA.'

By H. C. C. Rennie, M.B., B.S. (Adel.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), Nunyara, Belair, South Australia.

The neglect of the State and of the medical profession to make an organized effort to cope with the spread of tuberculosis has prompted me to draw attention to the existing provision for sufferers from this disease and to what seems to me its inadequacy. In America each state has its own anti-tuberculosis movement run on careful lines and efficiently staffed with experts in their own particular work. What is being done in South Australia? I venture to submit that we, as a State, are grossly neglecting our duty.

As was to be expected, following upon the war has come a sharp rise in the annual number of notifications of, and of deaths from, pulmonary tuberculosis. In 1914 there were 487 new cases, in 1917 606 and, despite a drop in 1918, we may expect bigger figures as the men return and as the effects of the additional centres of infection become manifest. In the five years of war nearly 1,600 of our citizens (1,583, to be exact) have died from this disease and 2,669 new cases have been reported.

What becomes of these stricken people? As soon as a case is diagnosed it is notifiable under the *Health Act*, under a penalty for non-compliance. The notifications go to the local boards of health, as well as to the central board. These boards have nurses who are supposed to visit each house and give instructions as regards infection and the precautions necessary to combat it. In most cases the boards are understaffed and a great deal of this work is neglected, especially in country centres. I know patients who have had no communication from a board at all.

Here the work of the central board ends, except as far as a patient is supposed to be followed up in the same way when he is discharged from a sanatorium. There is no provision for the after-examination of patients, none for the examination of contacts and none for the continuous advice necessary to lessen liability to a breakdown.

Sanatorium Accommodation.

The value of sanatoria, especially for early cases, is not so clearly recognized as it should be by the general practitioner, but even if it were, how many could profit by it in South Australia?

(1) Kalyra Sanatorium, Belair, has about 50 beds and only patients who are supposed to be curable are admitted. This institution has a grant from the South Australian Government and from the Local Board of Health; fees are collected from some patients.

(2) Bedford Park Sanatorium was opened in June, 1917. It was built by the South Australian Government, at a cost of something like £20,000, for the treatment of returned tuberculous soldiers. There

¹ Read at a Meeting of the South Australian Branch of the British Medical Association on August 28, 1919. are 59 beds in the institution, which is fully staffed and has a full-time medical officer in charge.

(3) There is one private sanatorium, with 14 beds, at Belair.

Thus there are only 123 beds in the South Australian sanatoria and of these only 64 are available to the public. Yet you will remember that every year from five to six hundred new cases are diagnosed.

Hospital Accommodation.

For advanced cases which it is impossible or undesirable to treat at home, there is only the Home on North Terrace. It provides for about 70 patients, but the environment is dismal and utterly unsuited to advanced tubercular patients, for whom pleasant and cheerful surroundings are so essential. It is little wonder that so few persons with advanced disease can be persuaded to go to hospital when this is the only provision for them; they stay in their own homes, with inexpert attendance, to disseminate infection. It is a blot on our community that we condemn these unfortunate victims to spend the long days of a cheerless illness amid depressing surroundings in the heart of the city.

The gaps in our South Australian system are obvious from this résumé. Through lack of sanatoria suitable to the means and condition of the patient, many receive partial and inadequate treatment at home, or are sent to get worse in expensive and insanitary and badly-fed lodgings in the north. Patients leaving sanatoria drift back into their old, usually unsuitable employments, often before their disease is sufficiently arrested. No provision or even suggestion is made for examination of contacts, or for their education in precautions against infection. These gaps can and should be bridged.

Tuberculosis Dispensary.

In the first place, we should have a tuberculosis dispensary, centrally situated, with an expert on tuberculosis at its head and an efficient staff of nurses trained in the work. All notifications received by the Board of Health should be transferred to this department, which should then make an effort to get patients to undergo proper treatment and to train them in ordinary methods of prevention of infection. It would also urge possible contacts to present themselves at the dispensary for examination; in the majority of cases when the risk was explained, this would be done and thus many early cases would be detected. Another function of this department would be the care of patients after they leave a place of treatment. It should also organize a publicity campaign to popularize hygiene and to bring about a more reasonable attitude towards sufferers from tuberculosis. Especially among the less educated classes the present exaggerated fear of its infectivity and fatality, besides producing unnecessary and harmful discouragement in the patient, makes it almost impossible for him to get work or lodgings. The more care he exercises, the more his illness is realized and the more fearful become his mates. The result is that

a patient conceals his condition, neglecting both treatment and precautions that would draw attention to it. Lectures might be given, pamphlets distributed and paragraphs be got into the newspapers to spread a working knowledge of the facts and thus produce useful care and reduce dangerous phthisiophobia.

Patients first coming before the dispensary would be sent to its clinic, to a sanatorium or to the hospital.

Sanatorium Treatment.

In an efficient plan there must be sufficient accommodation for all early and curable cases, to allow the patients to stay at least six months. For the poorer classes this should be provided for by the Government, as is already done for other illnesses. The sanatoria must be properly situated and, what is far more important, properly managed on strictly disciplined lines. There should be a resident medical officer or, at least, a medical officer who can pay daily visits. The personal factor which is so important in the treatment of tuberculosis, cannot possibly be obtained when the medical officer pays two or three visits a week and has to treat 40 to 50 patients. There must be an efficient nursing staff, numerically strong enough to give special care to those who are in need of it.

Hospital Treatment.

As hinted before, immediate steps should be taken for the provision of hospital accommodation that is both humane and hygienic. Then, and then only, can we without misgiving urge patients with advanced disease to go to hospital and thus to limit the spread of infection.

The Farm Colony.

For many patients the proper sequel to the sanatorium would be the farm colony. This branch has only recently been developed, more especially in England. Its aim is to provide after-care for suitable sanatorium patients, who have recovered sufficiently to do, and to recruit moral stamina from, light work and at the same time train them in various occupations suitable to their illness. Besides farm work, poultry farming, pig-breeding and market-gardening can be taught and such trades as blacksmithing, plumbing and carpentry should be represented in the workshops. In England recently forestry has been added and this is eminently suited to South Australia. The more varied the occupations, the more attractive can the life be made. Patients should be remunerated for the value of their work. Such a scheme entails a large expenditure, but experience has shown that it is worth while; later the colony becomes partly self-supporting. It is especially suitable for returned tuberculous soldiers who, after a period of treatment, are again capable of light work.

These, then, are the various methods; it is essential that they be worked in entire co-operation, otherwise their efficiency will be greatly diminished. The whole scheme, of course, depends on the co-operation of the medical profession. Every effort must be made to get early diagnoses and notifications. In this connexion may I say that too little attention is paid to the study of tuberculosis in the University medical curriculum? At the end of his fifth year the average student knows practically nothing of pulmonary tuberculosis. I would urge that a short course on it be

incorporated in either the fourth or fifth year, with practical instruction in and demonstrations of symptoms and signs in early cases.

(1) There is no tuberculosis dispensary making its expert advice available to sufferers and contacts.

(2) For the five to six hundred yearly new cases in the State, there is a total of 123 sanatorium beds. Of these only 64 are open to the public.

(3) The accommodation for advanced cases is unsuitable. This leads to unhappiness and to a spread of infection which could be avoided if the hospital could be made more attractive.

(4) There is no provision in the way of farm colonies for the after-care of discharged sanatorium patients who, especially the soldiers, are often in need of occupational training.

When one looks at what is being done, one must admit that it comes far short of requirements. The sufferer from tuberculosis in this State, especially among the poorer classes (and it is from this class that most cases are drawn) has at present very little chance of gaining complete arrest of his disease, partly because he cannot obtain treatment for a sufficient length of time, partly because his treatment is not regulated as strictly as it should be. It is the duty of the Government, stimulated by the medical profession, to see that expert treatment and adequate accommodation are available to sufferers. It will be found that money spent in this way will not be wasted, but that, in time to come, the wisdom of the investment will be seen in terms of money, as well as of life, by the decrease in the number of patients requiring treatment, until such time as tuberculosis shall be entirely eradicted.

NOTES ON A PULMONARY CONDITION FOUND IN WARFARE.

By A. Stewart, M.B., and W. N. Robertson, M.B., Medical Officers, No. 6 Australian General Hospital, Kangaroo Point, Brisbane.

During our service in Kangaroo Point Hospital a series of cases has come under observation, which may be worthy of your consideration.

The symptoms are cough, sticky sputum, hæmoptysis, or even slight hæmorrhage, and great breathlessness, amounting in some to paroxysmal dyspnæa. There is dulness in the right infra-clavicular region, bronchial breathing, the inspiration being accompanied by numerous râles of varying coarseness and there is usually loss of weight, langour and loss of appetite. In fact, they have all the classical signs and symptoms of pulmonary tuberculosis, with this exception, that there is always a consistent absence, even with refined tests, of tubercle bacilli in the sputum. The patients are persistent mouth breathers, which is due to a well-defined deflexion of the nasal septum. These patients are generally found amongst the wounded, who have lain for a long time exposed in the field.

In civil life similar cases have been described by Huggard, of Davos Platz, and Clive Rivière, of Vic-

¹ Read at a Meeting of the Queensland Branch of the British Medical Association on October 3, 1919.

toria Park, and are found both in children and adults who are mouth breathers, suffering from adenoids or some nasal defect, the right upper lobe being affected. This localized atelectasis is due to the anatomical disposition of the right bronchus, which is shorter, wider and more horizontal than the left, and the partial lung collapse can easily be accounted for by the diminution of suction in inspiration, followed by catarrh and a certain amount of chronic inflammation, which, if untreated, ends in fibrosis.

The treatment of the pulmonary symptoms consists in administration of iodide of potassium and liquor arsenicalis, which very soon loosens the cough and controls the breathlessness. If the asthma is urgent in the early hours of the morning, as it usually is, it can be relieved by giving aceto-salicylic acid in 0.3 to 0.6 grm. doses in powder at bedtime.

However, the main part of the treatment is the dieting of the patient, which must consist in food in which carbo-hydrates are reduced to a minimum, with the addition or two to two and a half litres of milk per diem and, if it agrees, cod liver oil in small and increasing doses. In this way you avoid the hyperpyremia described by Francis Hare, which is conducive to bronchial catarrh. As soon as the normal weight is attained, there is an amelioration of the pulmonary condition. To insure success the weight has to be studied. The question naturally arises, what constitutes the normal weight.

The weights appearing in many diaries, generously given away by wholesale firms, are inaccurate as far as a sub-tropical climate like Queensland is concerned. The following formula has been in use for some time and found reliable. It was compiled by one of us (A.S.) based on the average weighings found on the examinations of three hundred recruits.

The minimum weight of a healthy Queenslander 152 cm. (5 ft.) in height (in his boots), after a study of the above average weighings, ought to be 50.8 kilograms (8 stone); for 2.5 cm. 2,268 grammes (for one inch 5 lbs.) are given. For example, in a healthy Queenslander of 182 cm. (6 ft.), his minimum weight should be, according to this formula, 78 kilograms (12 st. 4 lbs.). This may seem a light weight, but experience goes to show that Queensland natives are spare and of light build.

When the normal weight has been attained and the symptoms are quiescent, the operation of resection of the septum is performed. This has been done by one of us (W.N.R.), in over 20 cases, resulting in a perfect cure in at least 95%. The failures have occurred only in those who are ultra-chronic and where evidently distinct fibrosis of the lung has resulted prior to the operation. The question may be asked, if the signs and symptoms have disappeared, why operate. This also has been tried with the invariable result that the pulmonary state returns.

The reason for reading this paper is not only because this localized atelectasis of the right upper lobe of the lung has not been recorded, as far as we have been able to find on perusal of the medical literature of the war, but also to endeavour to prove that this pulmonary condition is due to physical causes alone and not to bacterial invasion.

Another reason is to strengthen the growing belief that the prevalence of tuberculosis in all armies has been exaggerated and the probabilities are that the incidence of tuberculosis in the army during war may not much exceed that which pertains in peace.

Apart from the lung condition complicated with nasal deformities described above, the same pulmonary signs, only in a more pronounced degree, are very frequent in "gas" cases, the end results of those who were incurable being fibrosis followed by bronchiectasis, and not tuberculosis as was originally

supposed.

Towards the end of 1915, when the Germans seemed to be winning the war, 86,000 were invalided as phthisical from the French Army. This announcement was followed up by a commission from America headed by Drs. J. A. Miller and Hermann Gibbs, who, with Major Rist, of the French Army, found that only 17,000 were positively suffering from pulmonary tuberculosis. It was then calculated that the French lost the services of 32,000, i.e., two divisions (each French division represents 16,000 officers and men), at a time of the direst need, men who were quite physically fit enough to stop a probable bullet as easily as the same number of new recruits.

During the hurry and stress of warfare, such mistakes in diagnosis are inevitable. Osler states that only half of the men sent from the front to England as phthisical, proved to be suffering from tuberculosis. Malingering also was by no means unknown, fortified

by faked sputum.

TONSILLECTOMY IN ADULTS.

THE ADVANTAGE OF OPERATING WITH LOCAL ANÆSTHETIC.

By Bryan Foster, M.B., B.S. (Melb.),

Aurist, No. 5 Australian General Hospital; Honorary Assistant Surgeon, Victorian Eye and Ear Hospital, Melbourne.

Since the importance of removing possible foci of infection in certain systemic diseases has been recognized, the frequency of tonsil operations in adults has enormously increased. The tonsil has undoubtedly been held responsible for too much, but the improvement in general health following tonsillectomy in suitable cases is so striking that the operation is firmly established. Apart from systemic infections, the removal of the offending tonsil is the only logical treatment when attacks of acute tonsillitis or quinsy are frequently occurring. It is obvious that, to be effective, the whole of the diseased tonsil must be removed, so that we have passed on from tonsillotomy to tonsillectomy. Notwithstanding its frequency, the operation, as usually performed under general anæsthetic, leaves much to be desired, the objections being particularly-

(1) Hæmorrhage.

(2) Danger of anæsthetic.

Hæmorrhage.

It may be said that, attending the operation usually adopted, hæmorrhage is frequently alarming and too often dangerous. With a patient on his back under a general anæsthetic it is difficult to locate and pick up

a severed artery in a pharynx rapidly filling with blood, with the result that a big bleeding point may be missed. The surgeon is also frequently hindered in attacking the second tonsil by blood obstructing his view, so that he has to be guided by touch rather than sight, with the result that the pillars of the fauces may be seriously damaged. It usually happens that by the time both tonsils have been removed, the patient is coming out of the anæsthetic and the gag has to be removed. Then, if it be desired to get another look at the pharynx, a second dose of anæsthetic has to be given, or one has to wait until the patient has sufficiently recovered to obey instructions and open the mouth.

Danger of General Anæsthetic.

Personally I have been fortunate in always having the assistance of skilled anæsthetists and have never been alarmed or greatly impressed by any particular danger of general anæsthesia. The question of general anæsthesia in tonsil operations is at present being discussed at great length in the British Medical Journal and the point has been stressed that safety lies in deep anæsthesia. If this be so, it becomes more important than ever that there should be perfect cooperation between an anæsthetist and surgeon, a condition not always obtainable. It was with the object of more effectually controlling hæmorrhage that the method of operation to be described was evolved. Of all methods of tonsillectomy, that described by Sluder is the quickest and, after some practice, the simplest. It is a commonly accepted opinion that general anæsthesia deep enough to abolish pharyngeal reflexes and render the muscles flaceid is essential for the success of this method. As a matter of fact, the operation is much simpler under local anæsthesia and any gagging on the part of the patient, so far from hindering, rather assists, particularly in the so-called buried tonsil, by throwing the tonsil forward. In the description of the Sluder operation an important part in the manœuvre is attributed to the eminentia alveolaris of the lower jaw. The tonsil is said to be displaced forwards and upwards over this eminence, which in turn pushes the tonsil through the fenestrum of the tonsillotome. I am inclined to think that much of this is fanciful. At all events, it is not necessary to depend upon this eminence of the jaw. If the tonsillotome is firmly pressed outwards from behind and below the tonsil, the sinus tonsillaris is sufficiently movable to allow the tonsil to be pushed through the ring by counter pressure with a finger, without dragging forward over the eminentia alveolaris.

Operation.

The operation advocated is performed as follows:—Anæsthetic employed: 2% novocain, 7.2 c.cm.; 1% adrenalin, 0.6 c.cm.. The patient sits upright in a chair facing a good light. A nurse stands behind and forms a head-rest with her hands. The patient is told to open the mouth and take deep, panting breaths. No mouth gag is employed. A Lack's tongue depressor is used to bring the tonsils into view. A syringe holding 7.5 c.cm. is taken and injection made. Two punctures are sufficient on each side, the first being at the level of the upper pole of the tonsil and the second about its middle.

The injection is not made into the tonsil itself, but into the perintonsillar tissue, as close to the capsule as possible. Care must be taken in making the upper injection that the solution does not run back through the supra-tonsillar fossa. Should this happen, the needle must be withdrawn and inserted a little further out. Not more than 7.2 e.cm. is injected for each tonsil. The patient spits out any solution that has escaped into the mouth. In from three to five minutes the area is anæsthetic. The patient again opens the mouth and is told to resume the deep, panting breaths. The surgeon, standing directly in front, deals first with the right tonsil. The tongue depressor in the left hand brings the tonsil well into view. An open tonsillotome (I prefer Heath's pattern, large size), held in the right hand, is placed behind and below the tonsil and steady pressure upwards and outwards maintained. The tongue depressor is quickly handed to the nurse, who takes it between her fingers, without removing her support from the patient's head. The forefinger of the left hand is placed in front and above the tonsil and presses downwards and inwards, while the tonsillotome is pressed in the opposite direction. The tonsil slips through the ring of the instrument, usually with surprisingly little pressure, and the blade is then closed behind it as far as possible with the right thumb. The left hand is then used to press home the blade and to sever the tonsil completely from its attachments. While it is an advantage to have the instrument moderately blunt, one must not go so far in this direction that the blade cannot be pushed home without dragging on the tonsil. The hæmorrhage is usually very little. If an artery is bleeding, the point is picked up with forceps, a hook being used to retract the anterior pillar, if necessary, and tied, before the surgeon proceeds to remove the other tonsil. In removing the left tonsil the tonsillotome is held in the left hand and the right forefinger pushes the tonsil through. The patient is now allowed to wash out the mouth and throat with a little cold water. The tonsillar cavities are again inspected for bleeding arterial points. As a rule, none is found. A plain catgut suture is then used to bring the pillars of the fauces together, and this usually immediately checks any oozing. With a patient lying on his back or side, it is difficult to suture the fauces. In a sitting position it is easy to pass a small, fullycurved needle on a holder from behind forward and to pick up both pillars in one sweep. Artery forceps in the other hand are used to deliver the needle. With no mouth gag in the way there is no difficulty in tying the suture. In a small percentage of cases it will be found, on examining the tonsil prior to operation, that, as the result of inflammatory attacks, the anterior pillar of the fauces is firmly bound down to the underlying tonsil. In these cases a tenotome should be used to free the adhesion before resorting to the tonsillotome to complete the operation.

To recapitulate:-

(1) The operation of complete removal of tonsils can be painlessly and safely performed under local anæsthesia with a tonsillotome.

(2) The operation is simpler and easier of performance when the patient is sitting up facing a good light

than when lying down, particularly when reflected

light is used.

(3) Undoubtedly in the majority of cases of dangerous hemorrhage, the bleeding has been arterial. It is usually easy to find a spurting artery immediately it has been severed with the patient sitting upright. It is not so easy when the vessel has become hidden in clot, as may happen during the delay following general anæsthesia.

I have now performed the operation as described in over 700 cases, with infinitely more satisfactory results than when general anæsthesia was employed.

SECONDARY INFECTIONS IN INFLUENZA.

By P. S. Messent, M.B., B.S.,

Resident Medical Officer, Broken Hill and District Hospital.

Among the 240 cases of pneumonic influenza treated at the Broken Hill and District Hospital, there have been an interesting series of complications due to the pneumococcus; these include cystitis, peritonitis, empyema, pericarditis, meningitis and suppurative otitis media.

These cases point very strongly to the conclusion that an important factor in the disease is a curious exaltation of virulence of the pneumococcus, produced by the causative organisms of the pandemic.

Cystitis due to the pneumococcus must be a very rare condition; neither Stitt nor Besson mention it in their works on bacteriology. Osler and McCrae in their "Modern Medicine" quote the organisms responsible for cystitis in several series of cases; in only one of these series (304 cases) is the pneumococcus mentioned; in this series it was rare.

Notes of Case.

G.S., wt. 111 years, female, was admitted on August 18, 1919, with diagnosis of diphtheria. The onset occurred on August 11, 1919, with sore throat, headache and aching pains all over. She vomited on August 16. Her bowels were costive.

Previous History.—She was said to have had diphtheria at 7 and 9½ years. Her face and eyes frequently became swollen. No ædema of hands or feet had been noted.

Family History.—Three younger children at home were suffering from pertussis. Her mother had influenza.

Examination.—The temperature was 37.5° C.; the pulse rate 96 and the respiration 28. The tonsils and fauces were swollen and red. Small specks of membrane were seen on the right tonsil.

Four thousand units of diphtheria antitoxin were ordered. Throat swabs taken on three occasions showed no Klebs-

Loeffler's bacilli.

She was due to go home on August 26, 1919, but complained of pricking pain on the left side of her chest. The pain was worse on breathing deeply. The temperature was not elevated. Nothing abnormal was detected in her chest. She vomited five times during the day.

On August 27, 1919, the pain in the chest was less severe. The urine: 1028, slightly acid; albumin; no blood; thick pus; odour offensive. Three hundred and forty c.cm. voided

in 24 hours.

There was marked tenderness in the supra-pubic region, but no tenderness over the kidneys. There was no ædema, nor any frequency of micturition, nor pain on voiding urine. She was ordered a hot pack once daily; alkaline mixture.

She passed 420 c.cm. of urine in the following 24 hours. The urine was still acid. A culture from the urine (catheter specimen) on agar after 15 hours showed minute, transparent, non-confluent dewy colonies. These consist of Grampositive encapsuled diplococci, which produced acid in glucose and lactose, but none in mannite; no gas formed.

A culture from a fresh specimen made on August 29, 1919, yielded the same organisms.

On August 30, 1919, the urine was still very offensive and it still contained thick pus. The bladder was being irrigated once daily with oxycyanide of mercury (1-5,000).

On September 3, 1919, there was less pus in the urine. There was less tenderness over the bladder. The mixture was changed to one containing urotropine.

Peritonitis.

Many writers have mentioned the difficulties experienced in distinguishing cases of influenza with abdominal symptoms from acute surgical conditions. Apparently in their series abdominal complications have been uncommon. At Broken Hill the difficulties have been increased by the prevalence of pneumococcal peritonitis. We have had three cases of general pneumococcal peritonitis, in which there have been definite signs of lung involvement, both clinically and at autopsy. In addition to these, during June two cases were diagnosed as primary pneumococcal peritonitis, but the lungs were not examined after death.

In one case in which an operation was performed for general peritonitis, a smear of the pus showed pneumococci and pus cells. The culture contained pneumococci and bacillus coli. In this case there was associated a ruptured appendix. Death occurred about an hour after operation. At the post mortem examination it was seen that the lungs contained numerous sub-pleural petechie, as well as depressed blue patches, separated by areas of pink, apparently normal tissue. The depressed blue patches corresponded to wedge-shaped hemorrhages into the lung tissue.

A child, aged 6 years, was admitted with a diagnosis of appendicitis. Examination revealed consolidation of the whole of the right lung, with absence of breath sounds. There was general abdominal tenderness, most marked in the right upper quadrant. There was no cutaneous hyperalgesia. Vomiting only occured after coughing attacks. The vomitus was a foul, yellowish fluid. The child gradually became weaker and died.

At the post mortem examination the whole of the right lung was found to be gangrenous. It consisted of a foul, dark, greenish fluid and a few shreds of disintegrating lung tissue. The left lung showed the changes peculiar to pneumonic influenza. The abdomen contained a few flakes of lymph in upper part. The peritoneum did not appear inflamed. The appendix was normal.

Apparently the abdominal pain and the lymph found postmortem in the upper abdomen were due to infection through the lymphatics of the diaphragm from the lung.

Another child was admitted with a history of persistent vomiting and obstinate constipation for two days. The temperature was 38.5° C., the pulse rate 136 and the respirations 40. The expression was pinched and anxious, the child appearing gravely ill. The tongue was dry and brown. The patient was restless.

Nothing abnormal was detected in the chest. There was no tenderness or rigidity in the abdomen. On account of the persistent vomiting, the gravity of the child's general condition and the fact that we had recently seen a child with pneumococcal peritonitis and a lax abdomen, it was decided to explore the abdomen.

At operation the abdominal cavity appeared normal. The child improved for two days, then became worse and died five days later.

At post mortem examination the lungs showed changes typical of pneumonic influenza. The abdomen was normal.

According to Eccles Smith (Lancet, March 5, 1919) a factor of great importance in the diagnosis of these

cases is the fact that the alæ nasi move with respiration in influenza and do not move in peritonitis. This, however, would not assist, if co-existant lesions were suspected.

Empyema.

Two patients have developed a pneumococcal empyema. In neither have the physical signs been orthodox. The percussion note was impaired, but the "wooden" note usually associated with large collections of fluid was absent.

The breath sounds were slightly diminished in one, tubular in the other case. In neither were they absent. Vocal fremitus and vocal resonance were only slightly diminished. The temperature charts were septic in type. The pulse and respiration were rapid.

A large serum needle was inserted into pleural sac: thick cream pus was evacuated in one case. In the other no pus was obtained; two days later a trocar and cannula was introduced into the chest of the second man and thick pus evacuated.

At operation this pus was found to occupy a cavity behind the lung. This man died next day. autopsy it was found that there was another large collection of pus anterior to the lung. There was also a purulent pericarditis.

These cases serve to emphasize that the most reliable points in the diagnosis of empyema are the temperature, pulse and respiration chart and a large needle.

Meningitis.

One patient developed meningitis after she had apparently started convalescence; the temperature rose; the patient was very delirious and rigid. Lumbar puncture yielded turbid fluid, with a greenish tinge, under moderate pressure. The fluid contained numerous pneumococci.

Otitis Media.

Otitis media has occurred in several cases. There has been deafness, pain in the ears and tenderness over the mastoids. Rupture of the tympanum followed by a purulent or blood-stained discharge always occurred. Unfortunately, no attempt was made to identify the organism concerned.

Peripheral Neuritis.

Peripheral neuritis has been noted in two cases in both cases limited to one arm. The pain was severe and the loss of power very marked. Complete recovery resulted in five to six weeks.

An intractable form of sciatica was a marked feature in two cases.

Differential Diagnosis.

In 14 cases the diagnosis from diphtheria has presented great difficulties. The patients were sent into the hospital with a diagnosis of diphtheria; either laryngeal or pharyngeal diphtheria may be simulated.

Four of these cases were fatal and in each case at autopsy it was found that there was a complete absence of membrane in larynx and trachea and the presence of lung changes typical of pneumonic influenza.

Judging from the articles published in various

medical journals, laryngeal symptoms in this outbreak have not been at all common or urgent.

The only reference to this condition noted by the writer is found in an article by Abrahams, Hallows and French (Lancet, January 4, 1919). They state that a number of patients had husky voices and even were unable to phonate at all. We have seen two such cases, one of them being associated with a large area of emphysema of the chest wall (this condition also is referred to by the above writers). But I have seen no reference to the striking resemblance some of these cases may bear to laryngeal diphtheria. So accurate is the mimicry that, even when the condition is suspected, immediate diagnosis is impossible.

The following is a typical case:-

L.S., $\it xt. 2$ years 11 months, female, was admitted on July 26, 1919, with a diagnosis of laryngeal diphtheria. The onset of illness was on July 24, 1919, with a croupy cough. On the morning of July 26 the child became worse, with difficulty in breathing.

Examination.—Temperature 38.5° C., pulse-rate 152, respirations 48. The child looked very toxic. There was stridu-

lous respiration; retraction was marked.

There was no membrane visible in the throat. The glands at the angle of the jaw were slightly enlarged. The patient was placed in a steam tent and 20,000 units of diphtheria antitoxin injected. About one hour later the cyanosis and retraction were much increased. Low tracheotomy was performed; it was noticed that the mucous membrane of the trachea was intensely congested. stained mucus was coughed up. There was very little improvement in colour or general condition. Death occurred three lours later.

A culture from throat swab contained no Klebs-Löffler bacilli. At the post mortem examination the larynx and the upper part of the trachea were removed. The most noticeable feature was the peculiar plum coloured injection of the mucous membrane of the larynx and trachea, similar to that so constantly seen in the bronchi and bronchioles in pneumonic influenza. There was much ædematous swelling of the tissues of the larynx, especially involving the false cords. There was no trace of membrane.

The lungs showed sub-pleural petechia and wedge-shaped

hæmorrhages into the lung tissues.

The bronchioles contained much blood-stained secretion. The heart showed petechiæ beneath the visceral pericardium. The abdomen was normal.

In the next case admitted tracheotomy was performed at an earlier stage and recovery followed.

Some of the patients who had laryngeal symptoms, had small patches of membrane on the tonsils. Eight had tonsillar membrane in the absence of laryngeal obstruction. One of these cases was fatal. In all of these cases swabs taken three or four times yielded negative results.

Apart from the difficulty in diagnosis, these cases are of importance, as the obstruction to respiration, in a disease in which rest is so essential, calls very

urgently for relief.

An adrenalin spray might be expected to reduce the ædema, but if this is ineffective, intubation or

tracheotomy is indicated.

It is very interesting to note that in the 1890 influenza epidemic, the death rate in South Australia from diphtheria was unusually high. It seems quite possible that a number of these deaths were due to influenza diagnosed as diphtheria.

I wish to thank the Superintendent, Dr. Burnell,

for permission to publish these notes.

Since writing the above, the case referred to as cystitis developed further symptoms, necessitating operation. The tenderness over the bladder disappeared. On September 10, 1919, the child complained of acute pain in left loin. She vomited twice. There was great tenderness over the left kidney and hyperalgesia in the left lumbar region. There was no redness or swelling in loin. The temperature curve suggested a septic condition. The child had profuse night sweats and loss of weight. The white blood corpuscle count was 16,000.

On September 13, 1919, Dr. Burnell operated. There was no perinephritic inflammation. The lower pole of the kidney was enlarged and fluctuant. A large amount of foul pus was evacuated. A drainage tube was inserted into the abscess cavity. The child

is now doing well.

We have also had two more empyemata and two more cases with laryngeal obstruction. Both the latter were fatal.

Reports of Cases.

A FURTHER CASE OF SUPERACUTE PULMONARY GEDEMA.

By A. R. Southwood, M.B., B.S., Resident Medical Officer, Broken Hill and District Hospital.

Since the notes recently published in this journal on a case of this condition were written, a second fatal case of superacute pulmonary ædema has occurred at this hospital. In this instance the condition arose soon after paracentesis thoracis had been done in a case of chronic nephritis, accompanied by generalized ædema and pleural effusion.

The patient, a thin, feeble woman of 64 years, was admitted to a medical ward on August 16, 1919. She had to take to her bed three weeks before, on account of general bodily weakness, swelling of legs and abdomen, intractable cough and diarrhea. Previous to the onset of this trouble her health had been good. Examination showed marked ædema of both legs, of the abdominal wall and of the left arm and hand; the fact that she reclined always on her left side probably accounted for the last mentioned condition. Her respiration was distressed and shallow, the rate being 40 per minute. The posterior bases of both lungs were moderately dull on percussion and the breath sounds were distant. The heart impulse was forceful; it was in the seventh intercostal space, nearly 5 cm. outside the mammary line. There was an apical systolic bruit. The urine showed a heavy cloud of albumin.

In spite of large doses of digitalis, her condition showed no improvement. The anasarca, distressed breathing and severe cough persisted. On September 1 it was decided to aspirate the right pleural cavity. With a Potain's aspirator 1.4 litres of clear, straw-coloured fluid were drawn off. Twenty minutes later the respiratory distress became marked and it gradually increased. An hour or so later she began to expectorate large amounts of a straw-coloured, frothy fluid and altogether over a litre of this was brought up before death occurred. She died 2½ hours after the chest was aspirated.

Autopsy showed that the right pleural cavity had been almost drained of fluid. The lower lobe of the right lung was dark red in colour and very edematous. A blood-stained fluid gushed out from it on section. The upper lobe was normal. There was much fluid in the left pleura and the lower lobe on that side was small, compressed and carnified. The heart was hypertrophied, but slight dilatation of the mitral orifice was its only other lesion. The liver was of moderate "nutmeg" type. The kidneys were dark red; the capsule stripped, but left a definitely granular surface; there were several well-encapsuled tumours (about 0.5 cm. in diam-ter) in both kidneys, which microscopic examination

showed to be adenomata.

The probability is that before aspiration the right lower lobe was in the same compressed condition as the left was in at autopsy and that evacuation of the pleural effusion was followed by transudation of fluid into the alveoli and interstitial tissue of the lung—localized pulmonary ædema of very acute onset. Riesman's "congestion by recoil" explanation evidently applies here; compression of the lung gave rise to changes in its blood vessels; congestion after re-expansion led to transudation of serum. The death was asphyxial in type, as it was in the case previously reported by me.

Acute pulmonary œdema following paracentesis is fortunately but a rare accident. Osler saw two cases in 195 aspirations. In Osler and McCrae's "Modern Medicine" the condition is ascribed to the removal of an excessive amount of fluid (generally over 2,000 c.cm.). Dieulafoy says it is due to too much fluid being removed too rapidly. He advises the use of a fine needle and the removal of not more than a litre of fluid. In the case I have quoted no doubt the chronic nephritis was a strong predisposing factor.

I thank the Acting Surgeon Superintendent, Dr. Burnell, for permission to publish these notes.

Reviews.

TUBERCULOSIS OF THE LYMPHATIC SYSTEM.

From the nature of the subject treated, Dr. Walter B. Metcalf's recent work, "Tuberculosis of the Lymphatic System," will, perhaps, interest pædiatrists primarily, but physicians generally will find in the perusal of this book a concise statement of present-day conceptions regarding glandular tuberculosis.

At the outset, the reader is afforded an opportunity of refreshing his knowledge of the anatomical distribution of the principal lymphatic gland groups, with their tributary vessels, and the author succeeds in presenting this complex subject lucidly and briefly. Six excellent plates contribute materially to the good general impression gained from reading the anatomical résumé.

The rôle of the bovine type of bacillus in tuberculosis affecting human beings is considered at some length. Koch's original contention that bovine infection in man was a rare occurrence, scarcely calling for specific preventive measures, is shown to be untenable in the light of researches of recent years. The work of Park, in New York City, is given especial prominence in emphasizing the frequent occurrence of glandular tuberculosis of bovine origin.

In a comprehensive review of the avenues of infection, Dr. Metcalf lays stress on the frequency with which the bacilli gain access $vi\hat{a}$ the palatine tonsils, although he is careful to draw a distinction between tuberculous infection and tuberculous disease. Hence, not every person in whom tubercle bacilli are shown to be present in the *tonsillar tissues is necessarily the subject of clinical tuberculosis, but the not infrequent presence of the organisms in the tonsils, with no apparent cervical adenitis, is held to indicate the part played by the tonsils as an atrium of infection. Carious teeth are also shown to be accessories before the fact in numerous cases of tuberculous cervical adenitis.

In the discussion of the pathology, the author inclines to the views of Ghon and Hedren, that, in the vast majority of cases of "bronchogenous" infection, the primary lesion is in the lung, the bronchial glands becoming infected secondarily. We venture to think that this is a very debatable point. Surely all the observers who have stated the reverse position have not consistently overlooked the older lesions in the lungs.

Throughout the book the statement recurs that there is now reason to believe that all, or nearly all, adult pulmonary tuberculosis is but the awakening and evolution of an infection acquired during childhood. We find the repeated enunciation of the thesis scarcely convincing and should welcome more details of the evidence on which it is based.

Dr. Metcalf is convinced of the value of the von Pirquet reaction in children and states that the younger the child

¹ Tuberculosis of the Lymphatic System, by Walter Bradford Metcalf. M.D.; 1919. New York: The Macmillan Co.; Sydney: Angus & Robertson, Ltd.; Royal 8vo., pp. 197; 14 plates. Price, 15s. net.

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the greater the value of the test. A positive result in a child over six years of age is not to be estimated too highly as evidence of clinical tuberculosis, though it is indicative of an allergic state. The conclusion to be drawn is that the child has been sensitized to tuberculin by antecedent tuberculous infection, but is not necessarily the subject of tuberculous disease.

In the realm of treatment Dr. Metcalf comes forward as a champion of tuberculin therapy. He enters a strong plea for the general and rational use of this agent; but considerations of space preclude a discussion of his arguments on our part. Röntgen rays are considered the most valuable adjuvant to tuberculin in the treatment of glandular tuberculosis, and very little scope is allowed for surgical measures.

From the literary point of view, the book is marred by a number of clumsily constructed sentences, such as: "Dyspnœa of inspiratory character may result from pressure on the recurrent laryngeal nerve due to paralysis of the dilators of the larynx."

A paucity of intensives leads to the monotonous repetition of the adjective "marked" and its adverb "markedly"-words already much overworked in medical English.

These, however, are minor points and, for its general exposition of the subject of glandular tuberculosis, we can cordially recommend the book. An excellent bibliography is appended.

VICTORIAN MEDICAL BENEVOLENT ASSOCIATION.

The annual meeting of the Victorian Medical Benevolent Association was held on April 25, 1919.

The following office-bearers and members of the committee were elected for the ensuing year:-

President: Dr. W. Moore.

Honorary Secretary: Dr. E. L. Gault.

Honorary Treasurer: Dr. G. W. Cuscaden.

Members of the Committee: Dr. G. A. Syme, Dr. J. Talbot Brett, Sir Charles Ryan, Dr. F. Hobill Cole.

The Honorary Secretary read a brief report and presented the balance sheet, which was adopted

VICTORIAN MEDICAL BENEVOLENT ASSOCIATION.

Statement of	Receipts	and	Disbursem	ents, January 1 to December 31, 1918.
Receipts.				Disbursements.
	£ s.	d.	£ s. d.	
mmercial Bank, Janu-				By Sundry Grants
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••	Balance, State Savings Bank,			" Audit Fee	1	1	0
	January 1, 1918 50 5 0			" Amount Placed on Fixed Deposit, Bank of Vic-			
		569 18	6	toria, No. 46,471	178	17	5
**	Fixed Deposit, Matured Bank of Victoria,			" Invested in Commonwealth Government In-			
	No. 45,075	174 19	2	scribed Stock	500	0	0
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	Commonwealth War Loan £27 0 0			Commercial Bank £116 2 9			
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Victorian Government Debentures 16 0 0 169 5 3 Victorian Government Stock . 15 0 0 Fixed Deposit, Commercial 16 13 10

Fixed Deposit, Commercial Bank .. 4 10 0 Fixed Deposit, Bank of Victoria 7 16 6 State Savings Bank 1 17 6

88 17 10 Dividends, Australian Deposit and Mortgage Bank 46 13 8 Subscriptions 1 0 0

£881 9 2

£881 9 2

(Signed) R. W. SHACKELL, Auditor.

Melbourne. March 11, 1919.

Melbourne, March 11, 1919.

Bank

To Balance, Cor

Statement of Funds and Investments at December 31, 1918.

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Australian Deposit and Mortgage							Union Bank of Australia, Ltd., at 4%, due August	
Bank—							11, 1919 439 6	1
415 Preference Shares Fully Paid							Bank of Victoria, Ltd.—	
to 30s	622	10	0				No. 46471 at 4½% (Half-Yearly), Due October	
415 Deferred Shares Fully Paid							16, 1920 178 17	5
to 5s	103	15	0				Commercial Bank of Australia, Ltd.—	
10 05	100	10		726	5	0	No. 7783 at 4½% (Half-Yearly), Due July 13,	
Commonwealth Treasury Bonds-				.20	0	•	1919 100 0	0
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cember 15, 1925	500	0	U				Commercial Bank of Australia,	
No. 046022 4½%, Repayable De-	400						Ltd £116 2 9	
cember 15, 1925	100	0	0				State Savings Bank 53 2 6	
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7856 41% (Half-Yearly), Due Sept							December 31, 1918.	
total source of			,				200000000000000000000000000000000000000	

370 18 8 1919

Audited and found correct,

Audited and found correct,

(Signed) R. W. SHACKELL, Auditor,

Che Medical Journal of Australia.

SATURDAY, OCTOBER 25, 1919.

Che Returned Man.

Over five years ago the British Empire called upon her sons to leave their usual vocations, their families and their homes to bear arms against a foe threatening to engulf the world in militarism. The response in all the corners of the vast Empire was splendid. It has been computed that, even under a system of compulsory service, the proportion of the community that can be called upon to compose a fighting force rarely, if ever, exceeds 10%. The call was even more persistent for medical practitioners than for combatants. In the United Kingdom the drain was so great that it reached almost the breaking-point. In Australia the response of the medical profession to the call was spontaneous, free and magnificent. Instead of 10%, approximately 33% of the members of the medical profession offered themselves and went overseas to perform the duties required of them. In the meantime, the civil work was carried on by the remaining 66%. In other words, for the duration of the war, something like 2,000 practitioners looked after the civil population at home, while the other thousand were abroad in khaki. It meant harder work for these two thousand men, but it also meant a richer harvest. In some instances it meant a very much richer harvest. The men who went away, either went directly from the medical schools or left their practices. Some arranged with their colleagues to carry on the work during their absence; others trusted to chance to find something left when they returned; others again anticipated difficulty in this connexion and voluntarily disposed of their practices. A few of the more fortunate were so well established in their relations with their colleagues and the public that no special necessity existed to safeguard their interests. The several Branches of the British Medical Association recognized the need for concerted action to preserve the field for those who were doing their duty at an enormous sacrifice. A pledge was

given that the men who were undertaking the treatment of the patients of their colleagues on active service, would respect the trust placed in them and do their utmost to restore the practices to them on their return. It was a solemn promise—a moral contract. sealed with the sense of honour of the men making it. It has not been suggested on a single occasion that the men who stayed at home, should place themselves in a less good position when their colleagues returned than they were before August, 1914. The sacrifice was confined to the other man. It is with the deepest regret that we have learned of many instances in which this debt has not been honoured. Men have returned to discover that the temptation had been too great for their weaker colleagues. Instead of a genuine and frank endeavour to restore the practices to their original owners, these men have met with indifference or even deliberate greed. In other cases the returned man has been squeezed out of his old district or compelled to start the struggle de novo. Many men have recognized their obligations and have cheerfully done their duty to the fullest extent. The delinquents are, we hope and believe, few. But even if the instances of a breach of faith are isolated, they constitute a stain on the honour of the profession, a blot that will be difficult or impossible to remove. The majority of the men who served overseas, have returned; the remainder will be in the Commonwealth within a short space of time. We appeal most earnestly to every practitioner in Australia to ask himself conscientiously whether he has behaved in an upright and honourable manner to his colleagues who have joined the medical services for active naval or military duty. There can be no two codes of ethics in this connexion. The issue is quite simple. If he feels that he has not given his colleague a fair, clean deal, let him make amends without loss of time or demur. The man who fails to do so places himself outside the pale. The good opinion of his contemporaries is lost to him for all time.

TRADE UNIONISM AND THE B.M.A.

The highly important discussion on the medical profession and trade unionism which took place at the Representative Meeting on July 25, 1919, may be regarded as a definite confirmation by the governing body of the British Medical Association of the

policy concerning trade unionism. The constitution of the British Medical Association does not admit of its registration as a trade union, nor does it allow the Association to employ those methods which are popularly designated the "weapons of the unions." It will be remembered that as long ago as 1908 a few radically disposed members of the medical profession sought to establish a coterie for the purpose of the introduction into the politics of the medical profession of the tactics of the strike and other offensive methods to fight governments. The movement failed to attract more than a few practitioners. These men were prepared to sink professional dignity to gain their ends, but they found that the British Medical Association was unsympathetic and that they were impotent. When the views of the medical profession were tested on the question of national insurance and it was found that there was a large cleavage in the ranks of its members, the more militant party employed various expedients to gain an advantage for itself. The result was relatively small. Still more recently the so-called Medico-Political Union has increased its membership to a considerable extent. Through the enlistment of malcontents and extremists, this society has embarked upon a vigorous campaign and has endeavoured to gain recruits by a persistent bombardment of circulars and pamphlets, preaching something approaching "direct action" in medical matters. Members of the British Medical Association have read the replies which the Medical Secretary and the Council of the Association have published to the sinister attacks on the oldest and best-organized society of medical practitioners. Apart from the primary question of policy, it has become necessary in the old country to protect the position of the British Medical Association as the organization representative of the medical profession. these days of coercion and individual bargaining, medical practitioners are apt to be sweated and driven unless there is uniformity of action on the part of the profession. The establishment of fresh bodies inevitably results in the splitting of the profession and the weakening of the authority of the representative organization. The members of the Medico-Political Union appear to forget, or have no desire to remember, that the profession of medicine has functions that are far removed from commercialism, that its

integrity depends on its ability to command the respect of the public and the respect of its own members, that its relations with governments should be those of collaboration in the attempt to improve the health of the community and not those of employing weapons to force the "other side" to grant higher fees and better conditions of service and finally that the scientific practice of medicine is incompatible with the pursuit of trade union activities.

All thoughtful students of sociology must recognize the economic and equitable value of trade unions for the protection of workers employed in large numbers in the commercial world. The law is prepared to grant these unions distinct privileges, to which no reasonable man can take exception. We may dislike some of the methods that have been introduced into trade unionism by extremist leaders. We may regard many of these expedients as inimical to the welfare of the nation. But we are on unsafe grounds when we oppose the principle which has led to the emancipation of the underpaid and badly treated worker from the tyranny of unscrupulous employers. With these things the medical profession has no concern. The medical profession exists for the purpose of combating disease, of preventing death and of improving the health of the people. In performing these functions the medical profession is justified, aye, is impelled, to insist on reasonable remuneration for public services and on dignified treatment. The British Medical Association owes it to its members to take the necessary steps to prevent any public body from exploiting the doctors. The medical practitioner does not seek any interference or intervention whatever in his relations with his private patients. When services are rendered by contract, the doctors find it essential to fix standard terms, in order that the concessions they are prepared to make to people of small means are in consonance with the ability of these people to pay and in order that any competition between medical practitioners may be based on professional prowess and not on a willingness to give attendance on lower terms. To achieve this protection of the medical profession, the British Medical Association has been built up on democratic lines. Every member can record his vote when a policy is to be adopted. Every member has an opportunity of expounding his views and opinions and of arguing

with his colleagues on the soundness of these views and opinions. The principle of true democracy obtains, in that after every individual concerned has had a full opportunity of recording his ideas, each member is required to accept the decision of the majority. The minority is expected to sink individual opposition to a declared policy and to act loyally with the majority. In these circumstances, there is no room for trade union methods. They could not be applied to the advantage of either the medical profession or the public. It is highly significant that only seventeen members supported the proposal that members of the British Medical Association should not be prevented from joining societies professing trade union doctrines. Of these seventeen members, several frankly admited that they had no sympathy whatever with the medical trade unions.

VACCINES IN THE TREATMENT OF SKIN DISEASES.

Vaccine therapy has been on trial for many years. It has been employed skilfully and in haphazard ways; it has been tried in acute infections, in chronic infections and in non-infective conditions; it has been studied systematically and it has been used casually. Out of the enormous mass of heterogenous literature on the subject, one fact stands out prominent before all else. This fact is that the protagonists of vaccine therapy are still faced with the necessity of explaining the frequent failures to master infections. conceptions put forward in the early days have been modified in the light of fuller knowledge. In the first place there is ample evidence that the response to the introduction into the body of a specific antigen differs according to whether the antigen was present in the organism before the injection, or whether the antibody production is stimulated in an uninfected individual. Almroth Wright's contention that it is possible to obtain a response in distant normal tissues. while a localized infection is present, has convinced few immunologists. It is contrary to our conceptions of physical laws to assume that the soluble products liberated in a focal infection would not be washed out in the circulation, especially when the focal infection is associated with a local hyperæmia. If the antigen is capable of being diffused throughout the body, the whole body would have an equal opportunity of reacting with the production of antibodies. It is possible that in certain circumstances not yet definable, there may be a response to the stimulation of a sudden increase in the amount of antigen in the organism. It is also probable that a reaction induced by a non-specific antigen may have a beneficial effect on an infective process tending to become sluggish and chronic. In any case, it is not obvious why the introduction of more antigen into a body already infected, should effect the cure of the

infection. The first question to be decided is: Is there evidence of a curative action of vaccines? This subject has been examined by several prominent dermatologists and their results have been published in four excellent articles. As the clinical manifestations of the infections are visible in the case of skin affections, dermatologists should be able to settle the question. Dr. H. G. Adamson is disappointed with the results. He finds that he has not been able to watch the cure of a single case of sycosis, of pustular acne or of other chronic staphylococcal infections of the skin by vaccines. In furunculosis, especially the more acute forms, better results have been obtained. He does not regard it justifiable to treat lupus vulgaris by tuberculin. In summing up his experience, he states that while strikingly good results do occur at times, there is no means of knowing in what doses the vaccine should be employed, nor why it fails in some instances and succeeds in others. Professor Arthur Whitfield finds that in certain diseases characterized by a short course, vaccine treatment may achieve brilliant results, when the ordinary remedies fail and the process tends to become protracted. Impetigo is instanced as such a disease. In certain acute infections, which recur from time to time, vaccines may stop the relapses, provided that there is no constitutional defect and no exposure to local irritation. He has failed to obtain a curative response to vaccine in chronic skin infections. On the other hand, he is inclined to hold the opinion that good may result from vaccine therapy, when there is an infection in some other part of the body and when the skin lesions are not infective. He urges medical practitioners to remember that inoculation treatment does not absolve them from the duty of making a thorough investigation into the causes of skin lesions in every case. Dr. J. H. Sequeira and Dr. G. T. Western are more opti-They admit that vaccines must be useless when the lesion is inaccessible to the body fluids. They instance an acne comedo as a lesion practically outside the circulation, as contrasted with a furuncle. Vaccines, they hold, are curative in deep-seated staphylococcic infections, especially furunculosis and carbuncle. Follicular infections, such as impetigo, and chronic infections like sycosis are little influenced by vaccines. They recognize in the formation of fibrous tissue an effective barrier to the action of the vaccine. Lupus vulgaris proved resistant to this form of treatment, but ulcerative forms of scrofulodermia and lupus were favourably influenced. Benefit resulted from the use of vaccines in gonorrheal keratodermia. The tuberculides should not be treated in this manner. Finally they express disappointment with their results in acne vulgaris. Drs. J. M. H. Macleod and W. W. C. Topley have experienced satisfactory results from vaccine therapy in furunculosis. In the case of bullous impetigo they are disinclined to say more than that vaccines do not retard the cure. In acne vulgaris, acne adolescentium, sycosis barbæ and tuberculosis cutis the results are either uncertain or definitely disappointing. From these records, it would be justifiable to conclude that vaccine therapy has not proved itself an unqualified success.

¹ The British Journal of Dermatology and Syphilis, April-June, 1919.

TOWN DWELLERS AND IMMUNITY TO DISEASE.

In every epidemic it is noted that some people are attacked early, after very brief contact with infected persons, while others exposed to infection throughout the whole period of the epidemic, escape unscathed. Individuals are prone to attribute this apparent immunity to certain habits, precautions or mental attributes, but a close study of the persons who escape infection in spite of prolonged exposure, reveals that none of these factors are sufficiently constant to justify such a conclusion. It is very easy to speak of a natural immunity or resistance to infection, but hitherto no one has been able to present even a working hypothesis to explain what is meant by the phrase. In an interesting series of observations carried out in the United States of America, it was discovered that during the period when large numbers of recruits were sent to the various camps toward the end of 1917, the incidence of five infective diseases was greatest among the young men from sparcely populated rural areas, while it was lowest in men from densely populated urban areas. Lieutenant-Colonel A. G. Love and Dr. Charles B. Davenport¹ deal with the evidence on which this statement is based. Their information has been obtained from the records carefully collected at the military camps and analysed at the office of the Surgeon-General in Washington. They publish tables and maps from which the rough parallelism is apparent between the incidence of morbilli, parotitis, lobar pneumonia, cerebro-spinal meningitis and scarlatina and the density of population of the areas from which various groups of recruits were collected. In a few instances the general rule breaks down. More or less plausible explanations are offered for these instances. It is seen, however, that the rule obtains for the greater part of the United States. Similar observations have been made in connexion with influenza. The authors examine three possible explanations to account for this relative immunity of the recruit from the urban districts. In the first place it is suggested that the city dweller may have acquired an immunity by having had an attack of the disease in childhood. It is pointed out that this explanaion would not hold good for epidemic cerebro-spinal meningitis or lobar pneumonia, nor would it rest on a sound foundation in regard to scarlatina. The second hypothesis is that there has been a selective elimination of susceptible individuals in the more densely populated areas. The objection to this hypothesis lies in the fact that mumps does not kill and consequently selective annihilation could not lead to the diminished susceptibility of urban recruits. In the case of cerebro-spinal meningitis, it is stated that the disease is not sufficiently common among children to produce such an effect and, moreover, this disease is just as common in rural as in urban districts. The third suggested explanation is that diseases like hookworm, malaria, pellagra and so on, result in a raised susceptibility. This hypothesis would only hold good for some of the sparcely populated districts. It fails in respect to others, more especially the north-westerly States. The fourth hypothesis finds favour with the authors. It is that

dwellers in large cities acquire a general immunity to infective processes. The assumption is put forward that attacks of the ordinary infections lead to an immunity active in regard to other microbic processes. The authors suggest that the common affections of childhood lead to a persistent hyperleucocytosis, with a consequent resistance to subsequent infections. They offer statistical evidence to show that resistance to communicable diseases runs more or less parallel to the density of population and to the living conditions of the population. They also claim that the history of epidemics supports the contention that there is a non-specific immunity following each outbreak. From information supplied by the Prudential Insurance Company it appears that the death-rates from infective diseases generally are lower than the average during one or two years following a severe epidemic. It is possible that the somewhat lower death-rates from these diseases after the dving down of an epidemic may be attributed to other causes. It appears to us that the evidence of the existence of a non-specific general immunity of sufficient potency to influence the incidence of diseases like measles and mumps among recruits in the manner referred to above, is not convincing. The authors refer incidentally to the fact that the rural recruits are unaccustomed to living in crowded barracks or tents, while the limitation of space is by no means an unusual experience for the town dweller. It is possible that sudden deprivation of a free supply of fresh air and the concomitant discomfort of the overcrowding may have had a deleterious effect on the general health of the rural recruit.

SOME POINTS IN THE TECHNIQUE OF THE WASSERMANN REACTION.

Complement fixation depends on the physico-chemical condition of four or possibly all the constituents of the test. It has long been known that true biological specificity of the antigen is unnecessary for full fixation or deviation of complement. The original phenomenon studied by Bordet and Gengou depended on the alleged claiming of a unit of complement by a corresponding amount of antigen and antibody, so that when a hæmolytic amboceptor and the corresponding red blood corpuscles were added, no available complement was present to complete the hæmolysis. The early studies of hæmolysis demonstrated that the hæmolytic amboceptor worked satisfactorily when the dilution was carried out in a uniform manner. The inactivization of the serum had to be performed carefully, if uniform results were required. It has been shown that prolonged or excessive heating, long storage and irregular dilution introduced variations in the results. Moreover, each serum containing amboceptor possesses an optimum set of physical conditions for hæmolysis. The peculiarities of complement have puzzled many bacteriologists who have endeavoured to standardize hæmolytic tests. Close observation of the complement action of fresh guinea-pig's serum discloses that very slight variations in the stereo-chemical characters of the serum modifies this action. In regard to the antigen-anti-body reaction, it is known that antigen can be re-

¹ Archives of Internal Medicine, Vol. 24, August 15, 1919.

placed by chemical substances, such as lipoids, without disturbing the significance of the complement deviation. It is probable that many of the anomalies of the Wassermann test would disappear were more attention paid to the method of collection and preparation of the antibody dilutions. Dr. E. H. Ruediger has devoted much time and energy in attempting to standardize the conditions under which this test should be performed. In a recent publication1 he has shown that the method of dilution of the antigen is of great importance. To obtain uniform results, the dilution should be carried out at a standard rate and optimum conditions of turbidity and dilution should be secured. In a long series of experiments he has shown that with each antigen there is an optimum concentration. Dilutions both below and above the optimum yield less good results. The results varied considerably when the dilutions were prepared rapidly as compared with slow additions of saline solution. Here again he discovered for each antigen employed an optimum turbidity. When the dilutions were made by the addition of quantities such as 0.4 c.cm, at short intervals until the desired dilution was attained, less good results were registered than when 0.1 c.cm. was added at a time. He found that the strongest positive reactions were obtained when alcoholic extract of human heart in a dilution of 1 in 50 was employed, or when alcoholic extract of beef or rabbit heart in a dilution of 1 in 100 was used. Slow dilution resulted in weaker reactions, but the strongest reactions were always those obtained when optimum turbidity and optimum dilution were achieved.

In a further series of experiments he found that the complement activity of guinea-pig's serum actually increased to a slight extent after the serum had been kept in a frozen state for one week. At the end of the second week the serum equalled fresh serum in its complement activity. Freezing for periods longer than two weeks did not suffice to retain this power. The practical importance of this find is obvious, since the bad keeping quality of fresh complement not only involved a considerable expense, but also necessitates the repetition of standardization of complement serum before each set of tests is performed. These experiments support the view that the chemico-physical qualities of antigen and complement are determining factors in the reaction.

TWO UNRELATED QUESTIONS CONCERNING INFLUENZA.

In the August issue of the Bulletin of the Johns Hopkins Hospital there are two articles of laudable brevity, recording the results of some observations connected with influenza. While the subjects have no relationship with one another, the fact that they represent scraps on which a fuller knowledge of the pathology of influenza may be built, impel us to record them together. Accurate information concerning this disease has hitherto been extremely limited. It is therefore too early to make a final estimation of the significance of the disconnected phenomena recorded from time to time. At a later date all the

data will be collated and it will then be possible to learn from them what influenza is, how the signs and symptoms are caused and what mechanisms are involved in Nature's effort to get the upper hand over the disease process. Dr. Arthur L. Bloomfield and Dr. John G. Matters have ascertained that the hypersensibility of the skin to tuberculin is temporarily suspended during an attack of influenza. Hitherto morbilli alone of the acute infective processes was supposed to have the power of causing the disappearance of the skin reaction to tuberculin. This phenomenon was first observed by Preisich and at a later date von Pirquet elaimed that the inhibition to the cutaneous reaction was a property peculiar to measles in its exanthematic stage. The two observers named noted that in persons affected with mild influenza there was a remarkable diminution of the leucocytes in the circulating blood. This suggested to them that some of the reactive processes of the body were temporarily in abeyance. They therefore examined the hypersensitiveness of the skin to tuberculin by the von Pirquet test. Of nineteen patients suffering from influenza, seventeen gave a negative response to this test during the acute stage of the disease. After the febrile stage had passed a positive reaction was obtained. In one patient the reaction was positive, both during and after the acute stage, while the nineteenth patient remained insensitive to tuberculin when convalescence set in. It has been shown in the case of measles that the phenomenon signifies a reduction in the response to tuberculin and not an entire suspension. This can be demonstrated by employing the subcutaneous test. In six of the patients tested it was found that a delayed and attenuated response was obtained when the test was carried out at the termination of the febrile period. The authors state in a footnote that E. Schiffer has noted the same phenomenon in children suffering from influenza, although they were unaware of this observation when they wrote their article.

The second observation was made by Dr. Arthur L. Bloomfield and Dr. Charles A. Waters. They examined skiagrams of the chests of sixteen persons ill with uncomplicated influenza to determine whether the absence of signs of pulmonary involvement actually signified absence of pulmonary lesions. In every case there was no evidence of any consolidation. Root lung markings were noted in several patients, but it was shown that these shadows were permanent and were obviously unassociated with the influenza attacks. They conclude from these negative skiagraphical findings that "broncho-pneumonia" is a complication and not an essential lesion of the disease. This conclusion appears to be justified, but we would prefer to employ the term pulmonary involvement rather than broncho-pneumonia.

The City Coroner of Sydney held an enquiry on October 17, 1919, concerning the death of a man named Cosmo Neels, which took place at the Sydney Hospital in the evening of October 3, 1919, after a barium meal for X-ray investigation had been administered. The evidence pointed to the use of impure barium sulphate containing considerable quantities of sulphite and carbonate. The Coroner returned a verdict of accidental death.

¹ The Journal of Infectious Diseases, September, 1919.

Abstracts from Eurrent Medical Eiterature.

SURGERY.

(140) Indications for Decompression.

In outlining the indications for decompression, W. Sharpe (Surg., Gynec. and Obstet., April, 1919) observes that surgeons, in using this term, pre-suppose an increased intracranial pressure, the removal at the operation of a large area of the vault or base and the opening of the dura. Decompression may be employed also in association with an exploratory operation, or with one done for drainage. Decompression alone is done for brain tumour, irremovable tumours, basal and mid-brain tumours and for very large subcortical tumours. It is also indicated in selected cases of spastic paraplegia, due to intracranial hæmorrhage at birth. An exploratory operation may be combined with it in non-localizable tumours or abscesses and in selected cases of Jacksonian epilepsy, accompanied by increased intracranial pressure. Drainage may be employed with it in certain brain injuries, in hydrocephalus, brain abscess and early local meningitis. Possibly in a few selected cases of apoplexy decompression may be useful, but to advise it for ordinary apoplexy of the internal capsule type is to bring the operation into disrepute. The subtemporal method is preferred, except in infra-tentorial lesions. *Hernia cerebri* is not to be feared. Patients with increased intracranial pressure should never be allowed to reach the dangerous stage of medullary compression or to go blind without decompression being performed

(141) Surgical Treatment of Empyema.

A. V. Moschowitz (Surg., Gynec. and Obstet., April, 1919) gives his method of treating empyema, based on an experience of 140 cases occurring at Camp Lee. The majority were due to the hæmolytic streptococcus. He divides the condition into three stages: (1) The formative stage, in which operation is contra-indicated because adhesions have not yet formed. In this stage a free hydrothorax exists, which operation may convert into a dangerous, acute pneumothorax. If there is dyspnæa or cyanosis from mechanical interference, then simple puncture with a Potain's aspirator is indicated. (2) The acute stage, in which the abscess is localized and the lung adherent at the periphery. After exposure to X-rays and under local anæsthesia an incision is made over the empyema. In 90% of the cases simple intercostal incision, without rib resection, is sufficient and satisfactory. A large-sized rubber tube, fitted with a collar of rubber dam, is used for drainage, and a combination suction and irrigation apparatus is affixed and the Carrel-Dakin technique employed. (3) The chronic stage, which includes those with a second pus focus, those with a pus collection in the parenchyma of the lung and those with a broncho-cutaneous fistula. It is not necessary in treating an empyema to obtain complete obliteration of the pleural cavity. Details are given of the treatment of pleuropulmonary fistulæ and of lateral branch sinuses or necrotic ribs.

(142) Rotation of the Liver.

John Howell (Clinical Journ., June, 1919) describes a case of rotation of the liver on its vertical axis, occurring in a professional soldier, æt. 43, who was suffering from duodenal ulcer. He had previously within the same year reported a similar case in a woman, æt. 33. There was no visceroptosis. The upper surface of the right lobe of. the liver was adherent to the dia-phragm. The fundus of the gall bladder was opposite the mid-axillary line: in the previous case it had been opposite the post-axillary line. The liver was not prolapsed. Howell thinks that the condition is congenital. In a communication Keith distinguishes rotation on a horizontal axis (true rotation), in which the diaphragmatic surface becomes anterior and which is always associated with enteroptosis, and rotation on a vertical axis, which is common in women and by no means rare in the dissecting-room. He is not prepared to believe that the condition is congenital.

(143) Sero-Therapy of Gas Gangrene.

The results of the preventive treatment of gas gangrene by sera are given by Duval and Vaucher (Bull. et Mém. de Soc. de Chirurg., July 9, 1918). It is impossible from the clinical manifestations of the case to foretell the particular organisms at work. Hence, in the absence of microscopical examination, an immunizing serum against the B. perfringens, the bacillus of malignant ædema and the vibrio septique should be given. An obvious difficulty is that the circulation in the affected part having ceased, the injected serum will not reach the focus of infection. Nor can it influence muscle tissue already dead. But it is hoped that the serum will localize the invasion and neutralize the absorbed toxins while prompt surgery is being undertaken.

(144) Cancer of the Tongue.

D'Arcy Power (Brit. Journ. of Surg., January, 1919) points out that cancer of the tongue is peculiar in being almost entirely a human disease, and in conforming to one type-that of squamous-celled carcinoma. In men it is much more common than in women, the proportion varying from 6:1 (Butlin) to 18:1 (St. Bartholomew's Hospital statistics). Caries and pyorrhœa are but of minor importance in the causation. Syphilis has a close but indefinite connexion. Smoking is perhaps the most important of all factors and is probably responsible for the fact that percentage mortality due to this disease has increased 228% in 41 years. Smoking acts both by raising the mouth temperature and by irritation, and it may bear to cancer of the tongue a parallel relationship to that of the brazier and Kangri cancer.

(145) Cranial Surgery Under Local

De Martel (Bull, et Mém. de Soc. de Chirurg., July 30, 1918) enumerates the advantages of local anæsthesia in cranial surgery. (1) The sitting position is possible. (2) Movement in any direction can be obtained to facilitate the operation. (3) The elevated position diminishes the volume of the brain and lessens venous hæmorrhage. Ether, on the other hand, provokes hypersecretion of cerebro-spinal fluid and augments intra-ventricular pressure. If a sinus is wounded the patient can be got to breathe deeply and thus give the surgeon an opportunity of detecting the tear. (4) It does away with vomiting, which tears and herniates the brain. (5) It demands a gentleness, which, as Cushing remarks, is apt to be disregarded in an unconscious patient. (6) The patient needs less surveillance afterwards.

(146) Lateral Suture of Popliteal Artery.

Alary (Bull. et Mém. de Soc. de Chirurg., July 9, 1919) records a case of extensive popliteal hæmatoma caused by a shell fragment which was localized external to the upper part of the tibia. The internal popliteal nerve was partly severed, the popliteal vein completely lacerated and there was a lenticular perforation in the popliteal artery on its posterior surface. perforation was closed by two sutures of fine, strong linen thread, a curved intestinal needle being used. The vein was ligatured, the nerve sutured and the foreign body extracted. Eighteen days later the artery was still pulsating, and except for some local cedema and slightly increased local temperature the leg was normal.

(147) Experimental Duodenectomy.

Grey (Surg., Gynec. and Obstet, January, 1919) summarizes the results of a series of experiments devised to throw light on the functions of the duodenum. (1) The resection of the duodenum and the transplantation of the major pancreatic duct can be successfully performed without serious interference with the architecture of the pancreas. (2) Both biliary and pancreatic secretions can be successfully diverted into the jejunum. Withdrawal of these alkaline juices alters duodenal digestion and peptic ulcers are liable to form; subsequent resection of the duodenum is, therefore, necessary. (3) The duodenum can be resected without embarrassing the vascular supply of the pancreas. Its resection has nothing to do with the causation of diabetes and it is not essential to life.

(148) Post-Operative Parotitis.

C. U. Collins (Surg., Gynec. and Obstet., April, 1919) reports four cases of parotitis which occurred during the year 1915. Three of the patients died. This condition is more apt to occur after operation on the abdomen than elsewhere, and its development is favoured by a dry mouth and deprivation of the body fluids. Infection spreads

up along Stenson's duct. Prophylaxis consists in keeping the mouth moist and clean and, if necessary, stimulating salivation. Hypodermoclysis is valuable. If prevention fails, free incision should be made on the fourth day, uncovering the gland and puncturing it in several places with a blunt forceps. The incision should then be packed with moist gauze.

GYNÆCOLOGY AND OBSTETRICS.

(149) The Newer Methods of Cæsarean Section.

Joseph B. De Lee (Journ. Amer. Med. Assoc., July 12, 1919), in reporting 46 cases without feetal or maternal mortality, states that the mortality from the classic Cæsarean section is about 10% and that in picked cases early in labour it is from 1% to 2%. Apart from the mortality, the classical Cæsarean section has a distinct morbidity. The five main objections to it are: (1) the inherent mortality, (2) the frequency of abdominal complications, (3) adhesions, (4) rupture of the scar in subsequent labour and (5) the necessity to restrict the operation to "clean cases." In infected cases of obstructed labour, pubiotomy is too dangerous; craniotomy is the only alternative and it is to reduce the necessity for this horrible operation that the newer methods of Cæsarean section have been developed. He traces the developments of the operations since 1809 and states that there are about twenty different methods of doing them. All the methods belong to one of two classes. the transperitoneal and the extra-peritoneal. He prefers the transperitoneal operation invented by Krönig and modified by Gellhorn; of the extra-peritoneal methods he considers that of Latzko to be the best. These newer methods are quite distinct operations. He suggests the terms corporeal or classical Cæsarean section and cervical Cæsarean section. In the 46 cases reported, he did 44 transperitoneal and two extra-peritoneal operations. The advantages of the newer operations are: There is a lessened mortality, there are fewer abdominal complications, peritoneal adhesions are not so frequent, there is less risk of rupture of the scar in subsequent labour and they can be performed in cases in which from prolongation of labour it would be risky to perform classical Cæsarean section. The indications for the classical Cæsarean section are: The necessity for instant delivery, the desire to remove fibroids, placenta prævia, when a Porro operation is to follow and the presence of an extremely pendulous abdomen. The choice between transperitoneal extra-peritoneal operations is still undecided, but the majority of operators prefer the former. The extra-peritoneal protects best against peritonitis, but it is much more difficult to perform, and occasionally the peritoneum or bladder are torn through. In the treatment of labour in pelves that are not absolutely contracted, his plan is as follows: Induction of labour is not performed unless the patient demands it. A careful examination is made just before term and if it is highly improbable that the head will engage, a transperitoneal Cæsarean section is done early in labour. If there is reason to believe that the head will go through, the patient has a real test of labour; if a primipara and the test fails transperitoneal section is performed. In multipara publiotomy may be done instead. In cases with suspected infection transperitoneal section, but with frankly infected cases he recommends the extraperitoneal method with free drainage in young women and uterine extirpation in old. He states that the extra-peritoneal method is easiest to perform in neglected cases, as the lower uterine segment is unstretched and gives a larger area for incision and extraction of the child.

(150) Pregnancy Complicated by Influenza.

P. Titus and J. M. Jamison (Journ. Americ. Med. Assoc., June 7, 1919) have studied the effect of epidemic influenza in pregnant women during the recent outbreak. They regard this complication as important, not only in connexion with influenza, but also in connexion with pneumonia complicating pregnancy. The management of pneumonia ordinary pneumonia in pregnant women should be influenced by the expregnant perience in the epidemic. The mortality from epidemic influenza in pregnant women is much greater than in non-pregnant women. Abortion, miscarriage or premature labour occurs in approximately 42% of the patients of the series studied. The mortality from influenza among pregnant women was 48.2% without interruption of the pregnancy, but was increased to 80.9% by the occurrence of abortion, miscar-riage or premature labour. The meriage or premature labour. chanism which disturbs the pregnancy seems to be a combination of factors, such as de-oxygenation of the blood, excessive accumulation of carbon dioxide in the blood and a degree of toxæmia sufficient to cause the death of the fœtus. In the latter months the first two may suffice to start labour. In the earlier months it usually requires the additional condition of a dead fœtus to initiate uterine contractions. The ill-effects of abortion or labour on the course of the disease may be explained on the following grounds: (i.) muscular exertion increasing the already excessive amount of carbon dioxide in the blood and further straining of the already weakened myocardium; (ii.) sudden release of intra-abdominal pressure by the extrusion of the fœtus in an advanced pregnancy; (iii.) sudden reduction of blood pressure by hæmorrhage inci-dental to labour and (iv.) lessened resistance to the ordinary shock of labour and delivery. The treatment should be primarily prophylactic. Pregnant women should avoid expo-sure to infection. If infection occurs, the patient should be placed at rest, preferably in the open air. stimulation, free elimination and the exhibition of sedatives when necessary are advocated. Violent purging and quinine should be avoided. Delivery by forceps should be undertaken early, to avoid the exertion of labour. Anæsthesia is unnecessary and is contraindicated. Prompt measures should be employed to check hæmorrhage, such as packing of the uterus. Hypodermic injection of physiological salt solution is of use and is better than intravenous injections, because the circulatory system should not only not be overloaded, but should not be too suddenly strained.

(151) Mesodermal Mixed Tumours of the Uterus.

In a report of a case of botryoid chrondro-sarcoma of the endometrium, Isidor Perlstein (Surg., Gynec. and Obstet., January, 1919) states that mixed tumours occur more frequently in the urogenital tract than in any other part of the human body. They are nearly always of mesodermal origin when they occur in the vagina, cervix or corpus uteri and generally have a grape-like structure. The patient, aged 54, gave a history of irregular profuse bleeding from the vagina for 6 years, and had undergone curettage twice. J. B. De Lee removed the uterus by vaginal hysterectomy in May, 1917. According to the pathological report, the uterus was enlarged and spherical; the uterine cavity was filled by a tumour mass partly grape-like and partly polypoid and attached mainly to the posterior wall of the cavity. The tumour masses hung down as far as the external os which was widely dilated. The growth was macroscopically well defined from the underlying myometrium by its darker colour. The microscopical examination revealed islands of cartilage separated by myxomatous tissue and in places sarcomatous patches. The line of demarcation between the growth and the myometrium was sharp. The prognosis in such cases is generally unfavourable; the malignancy of these tumours manifests itself less by metastasis than by local extension and by recurrence after operative removal, which often occurs very rapidly. In the case reported the patient was well till June, 1918, when a laparotomy was done and chondrosarcomatous masses were found along the scar of the vaginal vault.

(152) Uterine Myoma.

Arthur Stein (Journ. Amer. Med. Assoc., July 12, 1919) states that it is impossible to recognize incipient or even advanced malignant changes of a myoma and that it is often difficult to diagnose carcinomatous changes of the endometrium by means of the curette where myomata are present. He further states that old, hardened "pus tubes" and sarcomata of the ovary may be mistaken for fibroids. In his series of 120 cases complications were present in 50.8%, there were 26 cases with pyosalpinx and 12 cases with hydrosalpinx or hæmatosalpinx and 17 cases with ovarian cysts. There were four deaths in the series. He says that he has had to operate upon several women who have been treated by Röntgen rays, owing to the hæmorrhage recurring again and in increased amount after it had ceased for several months.

British Medical Association News.

SCIENTIFIC.

A meeting of the Victorian Branch was held in the Physiology Lecture Theatre, Melbourne University, on October 8, 1919. There was an excellent attendance of members.

After the President, Dr. J. Ramsay Webb, had extended a cordial welcome home to a number of members of the Branch, who had recently returned from war service, Professor W. A. Osborne proceeded with a lecture and experimental demonstration on "New Methods and Theories in the Physiology of the Blood and Circulation."

Professor Osborne's instructive and entertaining talk dealt inter alia with recent researches on the bodily mechanism for maintaining equilibrium in the arterial blood pressure, studies on venous pressure and new facts relating to the part played by the arterioles and capillaries. After conducting several illustrative experiments, the lecturer gave a brief demonstration of gravimetric methods of blood analysis, for which only a few drops of blood were necessary.

At the request of the President, Dr. A. V. M. Anderson proposed a vote of thanks to Professor Osborne.

Dr. Anderson expressed his pleasure in moving the vote of thanks and remarked that, while listening to Professor Osborne, he had realized that in the ordinary course of practice, medical men generally became very much out of touch with pure science, such as Professor Osborne had expounded. Professor Osborne had always endeavoured to maintain a close association between laboratory work and clinical teaching. No doubt the meeting was aware of the proposal, which had originated with Professor Berry, to establish the University Medical School close to the centre of clinical work. He (Dr. Anderson) thought that everything possible should be done to promote co-operation between the laboratory and clinical teachers.

Sir James Barrett, in seconding the vote of thanks, asked for the sympathetic help of the medical profession respecting university development. When he joined the University Council there were about 500 students in the University, whereas now there were 2,000, including 700 in the Medical School. But the staffs and buildings had not increased at the same rate as the students; consequently, double and triple banking occurred, the leisure of the staff was curtailed and research necessarily suffered. Furthermore, professors of science had few opportunities of meeting those engaged in similar avocations; travel was essential to brilliant research and without travel the teaching capacity of the staff must deteriorate. He believed the Government proposed to alter materially the constitution of the Council and one of the first duties of a new Council would be to arrange for leave to professors, for instance, one year in ten, and to see that the scientific output was not decreased. But such changes would involve policy, finance and perhaps criticism. The more the profession understood the difficulty, the better able would they be to keep people properly informed of the necessity of making some sensible business arrangements to secure these ends. He had great pleasure in seconding the vote of thanks to a self-sacrificing officer of the University-Professor Osborne.

Professor Osborne, in responding to the vote of thanks accorded him, asked the meeting to remember that, if the research work emanating from the Physiological Laboratory in the present and the immediate future should not equal in volume or quality that accomplished in former years, it was because the times were very difficult. There was no lack of will, but, unfortunately, a deplorable lack of time and opportunity.

The classes were now so large that his whole time was absorbed in tuition. Trained workers were very difficult to secure and there was the age-old difficulty of finance.

He had experienced very great pleasure in receiving the members of the Branch at the Physiology School that evening and thanked them for the excellent hearing they had given him.

It has been announced that Dr. Walter H. Russell has been elected the President of the South Australian Country Hospitals' Association. The Association has recently been formed. Dr. Russell is the Mayor of Yorke Town. The first

annual conference of the Association was held in Adelaide on October 15, 1919, under the presidency of Dr. B. H. Morris, the Inspector-General of Hospitals. The policy of the Association includes the advocacy of the principle of local rating for the maintenance of hospitals, of State registration of nurses, of the introduction of uniform rules for the management of hospitals and of the employment of uniform systems of book-keeping.

Medical Societies.

MELBOURNE PÆDIATRIC SOCIETY.

A meeting of the Melbourne Pædiatric Society was held at the Children's Hospital, Melbourne, on September 10, 1919, the President, Dr. Stewart Ferguson, in the chair.

Dr. A. Jeffreys Wood presented the case of a boy, æt. 4, in whom he demonstrated a tumour in the left renal region and proptosis of the right eyeball, accompanied by ecchymosis of the right upper eyelid. The child's illness had extended over a period of two months, during which time there had been considerable loss of weight, fretfulness and lack of appetite. The boy had complained of pains in various parts of the body, but particularly in the right knee; careful physical and radiographic examination of the joint, however, had revealed nothing in this situation. The swelling in the left flank had definitely advanced during the few weeks the child had been under observation. It was firm, irregular in outline and did not move with respiration. X-ray examination showed an irregular shadow in the left renal area. The urine was clear on microscopic examination.

Radiograms of the skull did not disclose any alteration in the regions of the sella turcica and orbit. The report received from Dr. Gibbs relative to the condition of the fundus oculi was that slight blurring in outline of the right nerve head was evident, together with engorgement of the retinal veins; there was, however, no actual swelling of the disc and the left nerve head appeared normal.

Although the tumour did not appear to be of splenic origin clinically, it was thought advisable to investigate the condition of the blood. Leucocytes totalled 10,000, the red cells 2,700,000 and the film, although manifesting a degree of anemia, was in no way distinctive.

Dr. Wood remarked that, although he had gained an impression of scorbutus at first glance, there could be no doubt as to the presence of a malignant tumour, with a metastatic deposit in the right orbit.

On the morning of the day of the meeting he had discovered a nodule in the scalp, which was, no doubt, a further instance of metastatic deposit. He considered the presence of the secondary growths a contra-indication to operative interference. Regarding the nature of the primary growth. Dr. Wood did not think it possible to discriminate between hypernephroma and sarcoma originating in the retro-peritoneal connective tissues.

Dr. M. D. Silberberg suggested treatment by radium, which would require to be implanted. He thought that the equivalent of implantation might be accomplished by the use of a drainage tube enclosing the radium down to the primary growth.

Mr. W. Kent Hughes's first case was that of a girl, et. 10. who, on her first visit to the out-patient clinic, had exhibited a pronounced limp and much tilting of the pelvis. The distortion was at that time extreme, but had improved very rapidly and, a fortnight later, there was no appreciable limp and only a little tendency to tilting of the pelvis. The trouble dated from one month prior to the child's first visit to the hospital and commenced with a limp in the right leg. The mother thought that the right leg was shorter than the left. There had been no history of injury, no pain on walking, and the child had always walked normally before the onset of the disability. Examined in the out-patient department, she was observed to walk on a wide base and to throw out the right lower limb laterally. Movements at the left-hip joint were good, but adduction was not permitted at the right hip joint. No tenderness could be elicited on pressure over the trochanter, vertebral spines or sacro-iliac

Mr. Kent Hughes exhibited skiagrams of the pelvis, in

which no bony lesion was apparent; the very rapid improvement, fine physique and excellent family history of the child, considered with the failure of all efforts to demonstrate an organic lesion, had led him to regard the condition as hysterical, and it quickly yielded to moral treatment.

Mr. Kent Hughes procedeed to report the progress of a child, et. 16 months, suffering from a large cystic hygroma, whose case had been under discussion at the last meeting of the Society. Since that time he had operated and was now able to demonstrate the specimen removed. Owing to the escape of its fluid and a degree of shrinkage in preservation, the specimen did not convey an adequate idea of the actual condition met with at operation. However, it permitted of an inspection of its spongy structure. Mr. Kent Hughes stated that the patient had been seen by him for the first time two days before the operation. The dyspnæa, which had been prominent, was getting worse and though there was considerable bulging of the lower naso-pharyngeal and pharyngeal walls, the difficulty of breathing seemed to arise from a sub-sternal prolongation of the cyst on the left side of the trachea. Apart from its tediousness, the removal of the cyst presented no great difficulty. It burrowed everywhere along the fascial planes and stretched across the pharynx to the right side. He had been obliged to dissect the tumour from the carotid sheath, as it extended infront of and behind the scalene muscles. Fortunately, he had been able to deal with the sub-sternal extension without resection of the clavicle.

Dr. A. Jeffreys Wood congratulated Mr. Kent Hughes on the excellent result he had obtained.

Dr. H. Douglas Stephens said that, in his experience of operating upon hygromata, he had found that these tumours usually permeated the different structures in the neck. In the instance under discussion the growth appeared to have followed the planes of the cervical fascia. The large size of some of the cysts suggested to him that the tumour was perhaps a combination of branchial cysts and hygroma; he had never associated large individual cysts with hygroma. Mr. Kent Hughes had demonstrated the practicability of operation for these cases, as against the alternative course of leaving them to adventitious inflammation.

Mr. Kent Hughes next demonstrated three cases of flat foot of varying degrees of severity.

(1) The first, a boy, æt. 11, exhibited an extreme grade of flat foot and at the outset of treatment presented very pronounced talipes valgus, associated with an exaggerated degree of contraction of the peronel. The boy now kept his foot in a fairly straight position and Mr. Kent Hughes did not anticipate any further improvement in the arch, as the underlying changes were bony. However, the dorsal flatness had disappeared and the foot was flexible and useful.

(2) The second case, although contraction of the peronei had been present at the commencement of treatment, was much more promising, in view of the absence of bony changes.

(3) The third instance, in a girl, æt. 11, illustrated the not infrequent association of genu varum with flat foot. This child had complained of pain in the ankles and had become very easily tired for some months before seeking treatment. A severe degree of flat foot was present, with prominence of the sustentaculum tali, especially on the left side.

Mr. Kent Hughes explained that he had followed the same general procedure in all three cases, viz., thorough manipulation, to insure the breaking down of all adhesions, followed by "putting up" in over-corrected position in plaster. He then demonstrated the boots with which the patients had been fitted. The important part of the boots was a leather valgus pad built up from the sole and extending into the "uppers" on the inner side of the boot. He impressed upon members the advantages of the leather valgus pad; all ordinary types were painful and he deprecated the use of any appliance which involved pressure on one point. Many types of pad commonly in use threw the patient on to the outer side of the foot, which, sooner or later, broke down. Mr. Kent Hughes claimed for the leather valgus pad a greater degree of comfort than that afforded by a steel plate; the leather arch could gradually be reduced as improvement progressed.

Dr. H. Douglas Stephens remarked that he was somewhat at a loss to understand the origin of the adhesions referred to by Mr. Kent Hughes. He was not aware of any antecedent inflammatory condition to which adhesions in these cases might be attributed. He wished to inquire of Mr. Kent Hughes if he would rely on the leather arch in the case of a heavy patient. He (Dr. Stephens) had found that the leather was so softened by the sweat from the feet that it soon ceased to act as a support. After much thought and experiment, Whitman, of New York, had found aluminimum phosphobronze the most satisfactory material from the point of view of resistance to the action of sweat and rust. In regard to the flat foot cases, he would like to see them twelve months hence. Dr. Stephens thought that exercise of the peronei would encourage a reversion to the old condition.

In reply to Dr. Stephens, Mr. Kent Hughes said that bony adhesions were always present in advanced flat foot, due to irregular pressure by the displaced bony surfaces. Periostitis also arose from pressure on surfaces not able to sustain it. It was the pressure of this new bone that made it so difficult to cure advanced flat foot. As regards the solid leather arch, which was really a building up of the waist of the sole on the inner side, he had used nothing else for over twelve years and had not once had any softening such as had been mentioned by Dr. Stephens. His objection to Whitman's sole plate was its springiness, which defeated the whole object of the support. The raising of the inner edge of the sole of the boot so as to throw the weight on the outer edge of the foot was, in his opinion, a most objectionable procedure, despite the fact of its universal use. regards the probable condition of his patients in twelve months' time, he hoped to see continued improvement, but it was essential that they should be kept under observation and that they should faithfully carry out carefully prescribed and supervised exercises, e.g., inward rotation, outward rotation and tip-toe exercises with the toes parallel. The proper use of the peroneus longus was most important, perhaps the most important of all.

Mr. W. Kent Hughes next dealt with a series of talipes cases.

(1) Congenital talipes, treated by manipulative methods since birth. Mr. Kent Hughes had performed tarsectomy and division of the plantar fascia. The child originally had a bad talipes equino-varus, but was walking after the lapse of one month since the operation.

(2) Talipes equino-varus. The case was shown to demonstrate the advantage of dealing with the plantar fascia first and leaving the tendo Achilles to the end of the operation. Mr. Kent Hughes expressed the view that talipes equinus sequent on poliomyelitis originated essentially in dropping of the medio-tarsal joint, aggravated later, no doubt, by muscular contraction.

In the case before the meeting there was no longer any cavus; the dorsi-flexion of the foot was good.

Mr. Kent Hughes outlined his operative procedure in dealing with talipes equino-varus. The plantar fascia was divided well across the foot from the structures beneath and carefully cut across. The next step was to throw down the abductor hallucis and to divide all the processes of the plantar fascia which came through to the dorsum as intermuscular septa. It was sometimes necessary to divide the long and short plantar ligaments in addition, but the result should be that the foot could be easily rectified. The only danger to be avoided was that of dividing the peroneus longus in the sole of the foot and it was necessary to divide the tendo Achillis at the finish of the operation.

Dr. H. Douglas Stephens said that he had followed the plan of removing a quadrilateral piece of the plantar fascia, together with division of the long and short plantar ligaments in operating for talipes equino-cavus and had been disappointed to find, in some instances, a tendency to recurrence, after the lapse of about twelve months. He had attributed the failure to attain complete success to the action of the long and accessory plantar flexors. What was to prevent the recurrence? The foot would not be of much use if the flexor muscles were divided.

Mr. Kent Hughes stated that he had abandoned the operation of removing a quadrilateral piece of the plantar fascia, in favour of division of this structure right across the foot, subsequent to cutting it free from the structures beneath it. He confessed he could not understand why a recurrence should supervene if the plantar fascia and its diverticula together with the long and short plantar ligaments, were

divided. Perhaps the patients had not walked soon enough; he recommended that they be induced to walk as soon as possible. He frequently divided the long plantar flexor of the hallux. He thought that Dr. Stephens was quite wrong in fearing any bad result. He had divided every dorsal and plantar flexor at the one sitting in many cases of clawed toes.

Dr. H. Douglas Stephens introduced for discussion the case of a boy, aged four, with polyarthritis. The child had fallen from a tricycle twelve months before. Two days later swelling commenced in the left knee and had persisted in spite of massage and medical treatment outside. At no time had the joint appeared to be very painful and the child now made no complaint. The limp had developed within the last six months. The boy had had whooping cough at 12 months of age and his mother died of pulmonary tuberculosis when he was 15 months old. Examination revealed limitation of movement in the left knee-joint, complete extension being prevented. There was 2.5 cm. wasting of the thigh and 1.8 cm. wasting of the calf muscles. Considerable thickening of bone was apparent at the lower end of the femur. The limb could not be straightened beyond an angle of 140° and a condition of partial dislocation of the tibia backwards existed. There was apparently no fluid and no pain. The right tonsil was seen to be ulcerated. The teeth were in a moderately healthy condition and the nutrition good.

The von Pirquet test resulted in a slight reaction to bovine tuberculin, but none to human. The result of the Wassermann test was negative. Further physical examination disclosed some limitation and stiffness in the right elbow-joint; complete extension was not possible. Painlessness was a feature.

Dr. Stephens exhibited radiograms, which showed arthritis and decalcification in the left knee, erosion of cartilage in the right knee and a focus of disease in the left ulna.

When seen again on September 5, the child was noted as exhibiting swelling of the synovial membrane of the right knee, without pain or great disability. The right tonsil had cleared up, but the left tonsil at this time presented an appearance strongly suggesting a mucous patch.

Dr. Stephens asked for some discussion regarding diagnosis. The child's mother had died of pulmonary tuberculosis when he was fifteen months old. A polyarthritis of non-painful character, with lesions of bones and joints, was not inconsistent with tuberculosis. Dr. Webster had examined scrapings from both tonsils and had reported that he was unable to identify the Spirochæta pallida, although various spirochætal forms abounded. There was no suggestion of syphilis in the family history, but he thought that a specific arthritis called for consideration in diagnosis, as did a rheumatold condition. He would be glad of suggestions in regard to treatment. The child had been fitted with a Thomas's splint and ratchet extension to the left knee and with a splint to the right elbow.

Dr. A. Jeffreys Wood thought that an ordinary Thomas's knee splint would meet the case, as the weight of the leg would be sufficient to overcome the flexion.

Dr. H. Hume Turnbull said that the absence of pain and fever and the evidence in the sklagrams of generalized rarefaction of the bones were strongly suggestive to him of a syphilitic process. He thought the sklagram of the elbowjoint particularly indicated this view. The knee-joint had a distinct resemblance to an early Charcot's joint. On the whole, he considered syphilis the most probable diagnosis.

Dr. Stewart Ferguson remarked that he always associated pericapsular, rather than bony, changes with rheumatoid arthritis, in which condition one looked for effusion and pain. A certain worm-eaten appearance in the skiagram of the knee-joint was perhaps indicative of tuberculosis, but he thought the condition was very probably syphilitic. He also was struck with the resemblance of the knee-joint to a Charcot arthropathy.

Dr. H. Hume Turnbull showed a case of mitral stenosis, the point of interest of which was an existing gross and obvious pre-systolic murmur, in an endocarditis which could not have dated further back than nine months. The case was unusual and interesting, as showing the degree of sclerosis brought about in the time. The boy had had his first attack of chorea in December, 1918, prior to which time

he had always been healthy and vigorous. There was also a varying diastolic murmur and he visualized the condition as a narrow mitral orifice (button-hole), with retraction and sclerosis of the cusps. For such a state of affairs to be established in the short period of nine months was a rare occurrence.

Dr. Stewart Ferguson asked if it were possible that the auscultatory signs could be accounted for by the presence of excessive vegetation. Dr. Turnbull thought not; excessive vegetation presupposed a greater acuteness of the boy's present condition, with more myocardial involvement than the evidence showed and a great liability to emboli. He did not think that vegetative endocarditis ever caused a murmur per se and in the absence of destruction of the valve.

The meeting terminated with the exhibition of pathological specimens by Dr. Reginald Webster.

THE OPHTHALMOLOGICAL SOCIETY OF NEW SOUTH WALES.

The annual meeting of the Ophthalmological Society of New South Wales was held in the Sydney Hospital on August 7, 1919, Dr. R. H. Jones, the President, in the chair.

Election of Office-Bearers.

The following office-bearers were elected for the ensuing year:—

President: Dr. Gordon MacLeod.

Vice-President: Dr. Guy Antill Pockley.

Secretary: Dr. J. J. Kelly. Treasurer: Dr. J. C. Halliday.

Members of Council: Drs. R. H. Jones and E. A.

D'Ombrain.

Before vacating the chair, Dr. R. H. Jones, the retiring President, referred to the death of Dr. Guy S. Warren and proposed that a letter of sympathy be sent to Mrs. Warren.

Dr. Jones also referred to the matter of the "Red Book" (Telephone Directory) and proposed that the Council draft a letter to be signed by all the members and forward it to the publisher, asking him to omit the list of ophthalmic surgeons in future issues of that publication. This was seconded by Dr. D'Ombrain and carried.

Daval and Military.

HONOURS.

The following statements of services for which decorations were conferred, have been published in the *London* Gazette.

Bar to Military Cross.

Captain John Shaw Mackay, M.C., 12th Field Ambulance, Australian Army Medical Corps. For conspicuous gallantry and devotion to duty on September 18, 1918, south of Le Verguier. He moved forward with his bearers closely in rear of advancing battalions and under heavy machine-gun and shell fire, and by absolute disregard of his own personal safety was able to keep in close contact with brigade regimental medical officers. By this action the wounded were evacuated in the quickest possible manner, all congestion at regimental aid posts was prevented, and undoubtedly many lives were saved. (M.C., gazetted January 18, 1918.)

Military Cross.

Captain Edwin Thomas Cato, Australian Army Medical Corps, attached 1st Battalion Australian Infantry. In the operations near Hargicourt from September 18 to 21, 1918, he showed untiring energy and devotion to duty in his care of the wounded, particularly on September 21, when, in order to give early attention, he established his aid post in an open trench which was under shell fire and moved about the area continually, dressing wounded in shell holes and open country. By his disregard for personal safety and his cheerful confidence he set a splendid example to all.

Captain James Mann Henderson, Australian Army Medical Corps, attached 12th Battalion Australian In-

fantry. During the attack near Jeancourt on September 18, 1918, he established his regimental aid post immediately in rear of the jumping-off place and attended to the wounded of his and of a supporting battalion under heavy shell fire in an exposed position. As the attack progressed, he moved forward and treated large numbers of casualties in the open. By his energy, disregard of danger and clever organization, he relieved a great deal of suffering and throughout set a splendid example to those under him.

Captain Kenneth Claud Burnell, Australian Army Medical Corps, attached 11th Brigade Australian Field Artillery. For conspicuous gallantry and marked devotion to duty during the attack on the Hindenburg Line, south of Vendhuile, on September 29, 1918. He dressed the wounded under very heavy shell fire, and organized a stretcher party and conducted them to the battery positions, and by his personal and untiring efforts assisted in getting them to the nearest dressing station, a distance of about 1,000 yards, and still under heavy fire. Throughout the day he worked splendidly.

Captain Allan Melrose Purves, Australian Army Medical Corps, attached 2nd Tunnelling Company, Australian Engineers. On September 29, 1918, during the operations against the Hindenburg Line, in the neighbourhood of Bellicourt, he formed an aid post in a forward position. At this point the enemy put down a very heavy barrage, which lasted about six hours, and caused heavy casualties amongst the road party and the infantry in the vicinity. The whole of this time he attended to the wounded in the open, showing great gallantry and devotion to duty, and undoubtedly saved many lives.

APPOINTMENTS.

The following appointments, promotions, etc., are notified in the Commonwealth of Australia Gazette, No. 117, of October 16, 1919:-

> Australian Imperial Force. APPOINTMENTS TERMINATED. Second Military District.

Major R. McD. Bowman. Dated 4th October, 1919.

Third Military District.

Major J. J. McMahon. Dated 5th August, 1919.

Major R. J. de C. Talbot. Dated 7th August, 1919. Captain H. Sutton. Dated 29th September, 1919. Captain G. O. Robertson. Dated 21st July, 1919. Captain E. F. Harbison. Dated 19th June, 1919.

Fifth Military District. Captain W. J. Beveridge. Dated 29th August, 1919.

Australian Military Forces.

APPOINTMENTS, PROMOTIONS, ETC .. First Military District.

Australian Army Medical Corps-

Honorary Captain J. H. Macarthur, from the Australian Army Medical Corps Reserve, Second Military District. to be Captain (provisionally). Dated 1st September, 1919.

Captain and Brevet Major H. S. McLelland to be transferred from the Australian Army Medical Corps, Second Military District, with Corps seniority next after Captain (Honorary Major) J. S. Smyth. Dated 25th August, 1919.

Second Military District.

Australian Army Medical Corps-

Captain and Brevet Major H. S. McLelland to be transferred to the Australian Army Medical Corps, First Military District, with Corps seniority next after Captain (Honorary Major) J. S. Smyth. Dated 25th August, 1919.

The undermentioned officers are transferred to the Reserve of Officers: Major J. W. B. Bean, Captain (Honorary Major) S. H. Weedon, Captain J. M. Maclean, Captain (Honorary Major) N. K. Robertson, Captain F. H. Sabiel, Captain (Honorary Major) S. V. Appleyard, D.S.O., Captain J. T. Paton, Captain (Honorary Major) E. S.

Harrison. Dated 1st October, 1919.
Captain (Temporary Major) E. W. Fairfax to be transferred to the Reserve of Officers and retain the temporary rank of Major whilst employed as Specialist at No. 4 Australian General Hospital. Dated 1st October, 1919.

The undermentioned officers to be transferred to the Australian Army Medical Corps Reserve and to be Honorary Captains: Captain (provisionally) E. W. Buckley, Captain (Temporary Major) P. E. W. Smith, Captain (provisionally) G. K. Smith, Captain (provisionally) W. B. Grant, Captain (provisionally) W. A. R. Sharp. Dated 1st October, 1919.

The resignation of Captain N. Zions of his provisional appointment is accepted. Dated 9th August, 1919.

Australian Army Medical Corps Reserve-

Honorary Captain J. H. McArthur to be transferred to the Australian Army Medical Corps, First Military District, and to be Captain (provisionally). Dated 1st September, 1919.

Third Military District.

Australian Army Medical Corps-

The resignations of Captains N. J. Gerrard and E. B. Heffernan of their provisional appointments are accepted. Dated 30th September, 1919.

Australian Army Medical Corps Reserve— Honorary Captain R. T. Fetherstonhaugh to be

granted the temporary rank and pay of Major whilst employed (full time) at No. 5 Australian General Hospital. Dated 16th September, 1919. Honorary Captain K. R. Moore to be granted the

temporary rank and pay of Major whilst em-ployed as Officer Commanding No. 1 Military

Sanatorium. Dated 15th September, 1919.

Honorary Major J. H. L. Cumpston to vacate the temporary appointment of Staff Officer to the Director-General, Australian Army Medical Services, and to relinquish the temporary rank of Lieutenant-Colonel. Dated 30th September, 1919.

Fourth Military District.

Australian Army Medical Corps-

Captain S. R. Burston, D.S.O., Captain and Brevet Major A. R. Clayton, D.S.O., and Captain (Temporary Lieutenant-Colonel) A. W. Hill to be Majors. Dated 1st July, 1919. Captain A. MacMillan to be transferred to the Re-

serve of Officers, Third Military District. Dated 18th August, 1919.

Captain D. Dawson to be transferred to the Reserve of Officers. Dated 22nd August, 1919.

Australian Army Medical Corps Reserve-

Honorary Major R. H. Pulleine to be transferred to the Australian Army Medical Corps and to be Captain. Dated 1st July, 1919.

Honorary Captain R. G. Burnard to be transferred to the Australian Army Medical Corps and to be Captain. Dated 19th August, 1919.

Sixth Military District.

Australian Army Medical Corps Reserve-

The appointment of Honorary Captain L. C. Webster to be Honorary Major (temporarily) is termin-Dated 15th September, 1919.

GRANT OF HONORARY RANK.

The undermentioned, who has served in the Australian Imperial Force as Commissioned Officer, being appointed to the Reserve of Officers (temporarily), and being granted honorary rank equivalent to that held by him in the Australian Imperial Force:-

Officer who, on appointment for active service outside Australia, was not serving in the Australian Military

Third Military District.

To be Honorary Major-

E. I. L. Graves. Dated 1st July, 1919.

MEDICAL OFFICERS' RELIEF FUND (FEDERAL).

The Trustees acknowledge, with thanks, receipt of the following donations and promises to the above-named Fund:

(SIXTH LIST.)

	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						£	S.	d.
W	este	rn A	ust	ralia					
Dr. R. C. Merrywe	athe	er					50	0	0
Dr. E. A. Officer							50	0	0
Dr. W. Trethowan							50	0	0
Dr. J. J. Holland							45	0	0
Dr. E. E. Moule.							21	0	0
Dr. H. J. Gray							21	0	0
Dr. Vere Arkle							10	10	0
Dr. H. E. Clarke							10	10	0
Dr. T. J. Lonergan							10	0	0
Dr. W. P. Birming							5	5	0
							5	5	0
Dr. J. E. Ramsay							5	0	0
Dr. J. E. F. Stewar							5	0	0
Dr. T. Hungerford							5	0	0
Dr. T. Ryan							3	3	0
Dr. J. Bentley							3	3	0
Dr. E. C. Pope							3	3	0
Dr. C. Joyce							2	2	0
Dr. A. D. Deane							1	1	0
Dr. W. A. Kennedy							1	1	0
Dr. O. Paget							3	1	0
Dit of Lugor									
	Que	eens	and						
Dr. J. A. Cameron							75	0	0
Dr. E. W. Kerr Sc							52	10	0
Dr. J. Cook							30	0	0
Dr. R. Graham Bro	wn						26	5	0
Dr. Lilian V. Coop	er						20	0	0
Dr. P. G. McReddie							20	0	0
Dr. J. R. Robertson	n						15	0	0
Dr. H. L. Stafford							10	10	0
Dr. C. M. Davidson							10	0	0
Ne	w S	outh	W	ales.	. *				
Dr. Chisholm Ross							100	0	0
Dr. A. E. Mills							52	10	0
Dr. W. F. Litchfield	d						45	0	0
Dr. C. Shepherd (a							30	0	0
							20	0	0
Dr. T. Morgan Ma	rtin						10	10	θ
Dr. F. G. Failes							5	5	0
	-	ictor							
							25	0	0
Dr. F. W. Grützner							21	0	0
Dr. S. F. Ridley							21	0	0
Dr. Alban Best							5	0	0
Dr. Alban Best Total to Octo	ber	21, 1	1919,	£8,3	16 3	s. 9	d.		

We have been asked to announce that the Council of the Australasian Trained Nurses' Association have invited all returned medical officers to attend a reception at St. James' Hall, Phillip Street, Sydney, on October 30, 1919, at 8 p.m., to welcome returned Army nurses. There is great difficulty in ascertaining the names and addresses of every medical officer who has returned to New South Wales, and consequently it is feared that a few may not have received invitations. The Council of the Australasian Trained Nurses' Association hope that the medical officers concerned will pardon the omissions and accept this intimation as an invitation. Permission has been granted to medical officers to wear full uniform. We trust that a large number of returned men and others will be present to give our brave nurses a warm welcome.

PNEUMONIC INFLUENZA.

An Order has been issued and published in the Queensland Government Gazette of October 16, 1919, imposing the usual restrictions aiming at the control of influenza on the inhabitants of Division II. of the Shire of Widgee. On October 18, 1919, the restrictions applying to the township of Killarney were removed.

Special Correspondence.

(By Our Special Correspondent.)

LONDON LETTER.

The Value of Alcohol.

Professor R. B. Wild, of Manchester University, at a meeting of the Society for the Study of Inebriety, held on October 8, said the value of alcohol as a food must be discounted by its concomitant actions as a drug. There was no doubt that it was not a necessary food in health. Whether it was a desirable food was largely a matter of opinion, but there were conditions of disease where its sedative action on the nervous system might be desired, and where the digestive functions in abeyance could be improved, while in some cases alcohol might be preferred to other narcotics of greater potency. Professor Wild expressed the opinion that it would be of advantage to the community if all distilled spirits were looked upon and used as drugs only, and not as beverages. Were that the case, some of the worst effects of alcoholism would disappear, and the natural wines of comparatively low alcoholic strength and the lighter beers, including ginger beer, would still provide a sufficient variety of beverages to suit all tastes.

Women Doctors.

Surgeon-General Sir William Watson Cheyne delivered the inaugural address at King's College Hospital Medical School on October 1, 1918, when the winter session was opened. The occasion was made memorable by the fact that women students were admitted for the first time to the medical curriculum.

Referring to this new departure, Sir William Cheyne said that institution after institution had thrown open their doors to women medical students. Quite recently, also, the College of Surgeons extended its most envied diploma, that of the F.R.C.S., to women, one or two of whom had already taken it. The chance of medical women had come in connexion with the war. They had been called upon not only to replace doctors who had gone to the front, but to carry on base hospitals. King's College Hospital had thrown open its doors to women without restrictions. Both teaching appointments and scholarships were open to them, and they had been placed on complete equality with the men. He felt quite sure that this action would be repaid to it many times over. Women students could not have greater examples and greater ideals before them than at Denmark Hill. Referring to the discussion which had raged round the question of spontaneous generation, he said that, with the progress of medical knowledge, no credence was any longer attached to the suggestion that life could proceed from dead matter. He be-lieved that Dr. Charlton Bastian, who died a few years ago. was the last man of any eminence to believe in the theory.

Ramsay Memorial Fellowships.

The Ramsay Memorial Fund, which aims at raising £100,000 as a tribute to the memory of the late Sir William Ramsay, has found two important scientific objects, namely. the foundation of Ramsay Memorial Fellowships in chemical science, and the establishment of a laboratory of engineering chemistry in University College, London. Over £30,000 has been collected up to the present time.

The scheme is contained in two memoranda signed by Mr. Asquith, as President of the fund, by Mr. H. A. L. Fisher, as one of the Vice-Presidents, and by Lord Raleigh, as Chairman of the General Committee. They are being addressed respectively to the Governments of the dominions, colonies, and dependencies of the Empire. and to those of the principal allied and neutral countries. Each Government is invited to consider the possibility of providing from State funds at least one capital sum of £6,000, which will be sufficient to found and maintain in perpetuity one Ramsay Memorial Fellowship of the value of £250 a year, with an expenses grant of £50 a year. The Fellowship, it is proposed, will be tenable at any place

in the United Kingdom, possessed of the necessary equipment, by a fully trained chemist from the dominion, colony, dependency, or foreign State concerned. For dominions like Canada and India, one fellowship might scarcely be adequate, and it is hoped that some Governments will see their way to found not one, but a group of fellowships.

Correspondence.

RETURNED MEDICAL OFFICERS.

Sir,—The necessity for the formation in every State of an Association of Returned Medical Officers is emphasized by the action of the Queensland Branch at its meeting on September 19, 1919 (The Medical Journal of Australia, October 18, 1919). The proposal to give preference (other things equal) in hospital appointments to returned soldiers was modified to provide for preference to "those who have volunteered for war service." This ambiguous phrase may well This ambiguous phrase may well be interpreted to mean all medical men who volunteered for any war duty, even home service, and accordingly merits strenuous opposition. Many of the home service medical officers did only part-time duty or served for a short period only and were able to take full financial advantage of the absence oversea of so many of their colleagues. Even though the preference be limited to all men who volunteered for duty oversea, the returned man is still receiving less than his due.

The need for medical reinforcements was so great that no man who was fit and really anxious to go, need have stayed

The volunteers who did stay behind were of two classes:-

(a) The medically unfit, who have managed to feather their nests comfortably in the meantime and who need neither sympathy nor preference.

(b) Men who voluntereed but who rendered their applications unacceptable by stipulations as to rank and the class of work they would undertake. It is difficult to understand why these men should have any special consideration. What happens in Brisbane is the concern of the men resident there; the purpose of this letter is to call the attention of returned medical officers in Sydney and Melbourne to the possibility of similar action being taken in regard to their hospital appointments.

Yours, etc.,

"MAJOR."

October 20, 1919.

THE SURGERY OF TENDON TRANSPLANTATION.

Sir,-The clinical results can never be very good if we exhaust first every other means of dealing orthopædically with the case in hand and this I hold most strongly is our bounden duty. The most satisfactory form of transplantation occurs when we can remove some periosteum and bone to the new site. When we have to place tendon to tendon— I have (for 20 years) freshened the under surface of the reinforcing and the upper surface of the reinforced tendon and fixed them together with lateral sutures-the distal portion of the reinforced tendon has often to be strengthened by stout silk ligatures attached on the one hand firmly to the periosteum and on the other to the end of the reinforcing tendon.

I entirely disagree with the long period of immobilization mentioned in your abstract (p. 338). I begin passive and active movements gently the day following operation and thus avoid the trouble of adhesions. To attain success the greatest care is necessary to avoid more trauma than is absolutely necessary.

Yours, etc.,

W. KENT HUGHES.

22 Collins Street, Melbourne, October 20, 1919.

Births, Marriages and Deaths.

The charge for inserting advertisements of Births, Marriages and Deaths is 5s., which sum should be forwarded in money orders or stamps with the notice, not later than the first post on Tuesday morning, in order to ensure insertion in the current issue.

MARRIAGE.

FLETCHER-MIDDLETON .- On September 24, 1919, at St. Barnabas' Church, Sydney, by the Reverend F. C. Williams, Wallis Mervyn Alfred Fletcher, M.B., Ch.M. (Sydney), late Major A.M.C., A.I.F., only son of the late J. A. Fletcher, B.A., Forbes, and Mrs. Fletcher, Dubbo. to Jean, elder daughter of the late Dr. William Middleton, Mittagong, and Mrs. Middleton, Haberfield.

Proceedings of the Australian Medical Boards.

VICTORIA.

The undermentioned have been registered, under the provisions of Part I. of the Medical Act, 1915, as duly qualified medical practitioners:-

Langdon, Charles Stanley Blake, M.B. et Ch.B., Melb., 1919, "Rosecraddock," Hawthorn Road, Caulfield.

Quinlan, Bernard Gerald, M.B., Ch.B., B.A.O., Dublin, 1912, 26 Collins Street, Melbourne.

Shield, Carrie, M.B. et Ch.B., Melb., 1917, 264 Barkly Street, St. Kilda.

The following names of deceased practitioners have been removed from the Register:—
Harry Findlay Main.

Norman James Gerrard. Harold South.

QUEENSLAND.

The undermentioned have been registered, under the provisions of The Medical Act of 1867, as duly qualified medical practitioners:-

Lawrance, Guy Ardlaw, M.B., Univ. Syd., 1916, Surat. Miller, Harold David Bowyer, M.B., B.S., Univ. Melb., 1919, Townsville.

Sabiel, Frederick Herman, M.B., Univ. Syd., 1911, Brisbane.

Additional registrations:-

Feather, Walter Watson, Ch.M., Univ. Syd., 1919, Toowoomba.

Nisben, Alwyn Tom Hays, D.P.H., Univ. Camb., 1919, Townsville.

Books Received.

AUSTRALIA IN PALESTINE, Edited by H. S. Gullett and Charles Barrett, with the assistance of David Barker as Art Editor; 1919. Sydney: Angus & Robertson, Ltd.; Demy Quarto, pp. 152, profusely illustrated in black and white and in colours. Price, 10s. 6d..

trafed in black and white and in colours. Price, 10s. 6d.

A MANUAL OF CONSERVANCY, by Jahar Las Das, L.M.S. (Cal. Univ.), with an Introduction by Chus. A. Bentley, M.B., D.P.H., D.T.M. & H. (Camb.); 1919. Sydney, Calcutta, London: Butterworth & Company, Limited; Demy 8vo., pp. 189, illustrated. Price, 10s.

NATIONAL HEALTH: FROM MAGIC, MYSTERY AND MEDICINE TO A NATIONAL HEALTH SERVICE, by Ferdinand Rees, M.D.; 1919. Bristol: John Wright & Sons, Ltd.; London: Shngkin, Marshall, Haulton, Kent & Co., Ltd.; Crown 8vo., pp. 68. Price, 1s. 6d. net.

CATECHISM SERIES: ANATOMY, LOWER EXTREMITY; Third Edition; Part II.; 1919. Edinburgh: E. & S. Livingstone; Crown 8vo., pp. 67. Price, 1s. 6d. net.

CATECHISM SERIES: MEDICINE: Second Edition; Part IV.; 1919. Edinburgh: E. & S. Livingstone; Crown 8vo., pp. 88. Price, 1s. 6d.

Edinburgh: E. & S. Livingstone; Crown 8vo., pp. 88, Price, 1s. 6d.
CATECHISM SERIES: MEDICINE; Second Edition; Part V.; 1919.
Edinburgh: E. & S. Livingstone; Crown 8vo., pp. 77. Price, 1s. 6d.
CATECHISM SERIES: PHYSICS; Second Edition; Part II.; 1919.
Edinburgh: E. & S. Livingstone; Crown 8vo., pp. 68, Price, 1s. 6d.
CATECHISM SERIES: PHYSIOLOGY; Third Edition: Part II.; 1919.
Edinburgh: E. & S. Livingstone; Crown 8vo., pp. 79. Price, 1s. 6d.
FELLOWSHIP EXAMINATION PAPERS FOR THE DIPLOMAS OF THE
ROYAL COLLEGE OF SURGEONS, EDINBURGH, FOR SEVERAL
YEARS; 1919. Edinburgh: E. & S. Livingstone; Crown 8vo., pp. 54.
Price, 1s. 6d. net.

Medical Appointments.

It is announced that Dr. C. H. Shearman (B.M.A.) has been appointed Deputy Commissioner of Public Health and Acting Principal Medical Officer for Western Australia, during the absence on sick leave of Dr. R. C. E. Atkinson (B.M.A.).

Dr. G. J. Campbell (B.M.A.) has been appointed Visiting Medical Officer to the Old Men's Home at Claremont, Western Australia.

Dr. W. J. Morton (B.M.A.) having resigned, Dr. A. MacInnes (B.M.A.) has been appointed Government Medical Officer at Inverell, New South Wales.

In pursuance of Section 14 of the Workmen's Compensation Act, 1916, Dr. A. R. Southwood (B.M.A.) has been appointed Certifying Surgeon for the County of Yancowinna, New South Wales.

The appointment of Dr. T. O. F. Alsop (B.M.A.) as Government Medical Officer at Gunning is announced in the

New South Wales Government Gazette of October 17, 1919.

The appointment of Dr. A. J. Meikle (B.M.A.) as Deputy
Superintendent of the Mental Hospital, Parkside, is announced in the South Australian Government Gazette of October 16, 1919.

The Central Board of Health of South Australia has approved of the appointment of Dr. J. W. O'Brien as Officer of Health for Mount Gambier East and of Dr. H. Halloran for St. Peters, South Australia.

Dr. W. P. Birmingham (B.M.A.) has been appointed Medical Officer of Health to the North Fremantle Municipal Council. Western Australia.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum mentes sought, etc., see "Advertiser," page xix.

Medical and Health Department of Western Australia: Medical Officer of Health and Assistant Inspector of Hospitals.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	All Friendly Society Lodges, Institutes, Medical Dispensaries and other Contract Practice. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Cloncurry Hospital.
TASMANIA. (Hon. Sec., Macquarie Street,	Medical Officers in all State-aided Hospitals in Tasmania.

Hobart.)

Branch.	APPOINTMENTS.
SOUTH AUS- TRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
TRALIA. (Hon. Sec., 6 Bank of New South Wales Chambers, St. George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmain United Friendly Societies' Dispensary. Canterbury United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Friendly Society Lodges at Lithgow. Friendly Society Lodges at Parramatta, Auburn and Lidcombe. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. Newcastle Collieries—Killingworth, Seaham Nos. 1 and 2, West Wallsend. North Sydney United Friendly Societies. People's Prudential Benefit Society.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

- Oct. 28.-N.S.W. Branch, B.M.A.; Medical Politics Committee; Organization and Science Committee.
- Oct. 29.-Vic. Branch, B.M.A., Council.
- Oct. 30-S. Aust. Branch, B.M.A..
- Oct. 31-N.S.W. Branch, B.M.A.
- Nov. 3 to 12-Vic. Branch, B.M.A.; nominations received for Council.
- Nov. 4-Tas. Branch, B.M.A., Branch and Council.
- Nov. 7-Q. Branch, B.M.A.
- Nov. 11—N.S.W. Branch, B.M.A., Ethics Committee. Nov. 12—Vic. Branch, B.M.A..
- Nov. 12-North Eastern Med. Assoc. (N.S.W.).
- Nov. 13-Vic. Branch, B.M.A. Council. Nov. 14-N.S.W. Branch, B.M.A., Clinical.
- Nov. 14-Q. Branch, B.M.A., Council.
- Nov. 14.-S. Aust. Branch, B.M.A..
- Nov. 18-Tas. Branch, B.M.A., Branch and Council.
- Nov. 18—N.S.W. Branch, B.M.A., Executive and Finance Committee; Illawarra Suburbs Med. Assoc. (Annual).
- Nov. 19-W. Aust. Branch, B.M.A., Branch and Council.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to The Medical Journal of Australia alone, unless the contrary be stated. All communications should be addressed to "The Editor," The Medical Journal of Australia, B.M.A. Building, 30-34 Elizabeth Street, Medical